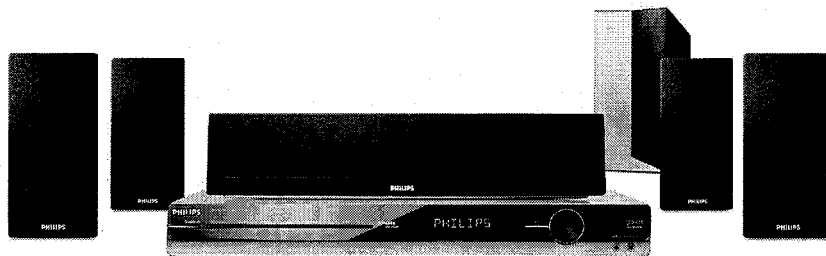


Service
Service
Service



Service Manual



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Published by KC-ET0742 Service Audio Printed in The Netherlands Subject to modification

**CLASS 1
LASER PRODUCT**

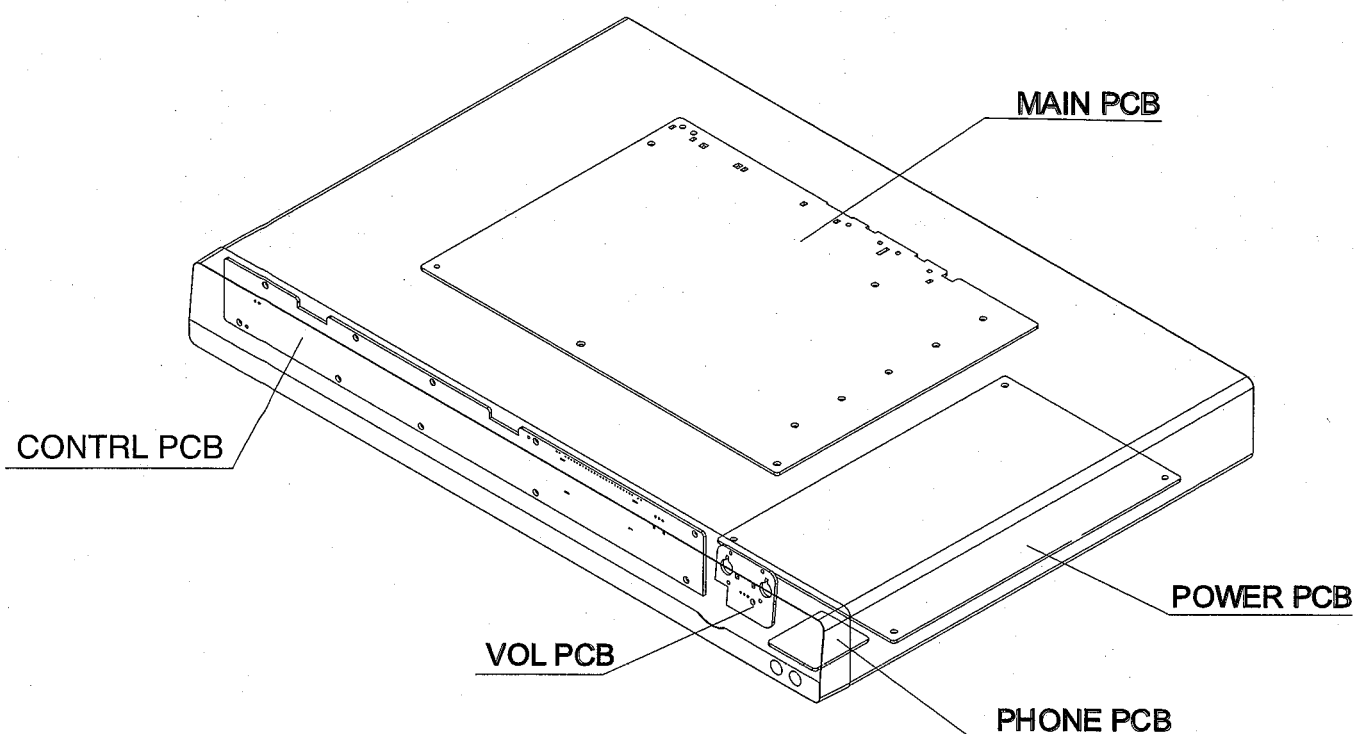
GB 3139 785 32661

Version 1.1



PHILIPS

LOCATION OF PCB BOARDS



VERSION VARIATION:

Type/Version	HTR5200
	/12
Feature & Board in used	
Main PCB (Power Output 600W)	X
Power Voltage (230V)	X
RDS	X

Specifications

AMPLIFIER

Total MAX Output Power
 Home Theater Mode: 600W
 Front: 75W x 2 / Channel
 Centre: 150W / Channel
 Surround: 75W x 2 / Channel
 Subwoofer: 150W / Channel
 Frequency Response: 150 Hz – 18 kHz / ± 3 dB
 Signal-to-Noise Ratio: > 60 dB (A-weighted)
 Input Sensitivity:
 – TV In: 500 mV
 – AUX In: 500 mV

RADIO

Tuning Range: FM 87.5 – 108 MHz (50 kHz)
 AM/MW 531 – 1602 kHz
 (9 kHz)
 26 dB Quietening
 Sensitivity: FM 22 dBf
 AM/MW 5000 μ V/m
 Signal-to-Noise Ratio: FM 55 dB
 AM/MW 40 dB
 Harmonic Distortion: FM Mono 3%
 FM Stereo 3%
 AM/MW 5%
 Frequency Response: FM 180 Hz – 10 kHz / ± 6 dB
 Stereo Threshold: FM 23.5dB

MAIN UNIT

Power Supply Rating: 220 – 240 V; 50 Hz
 Power Consumption: 100 W
 Standby Power Consumption: < 1 W
 Dimensions: 435 x 56 x 325 mm
 (w x h x d)
 Weight: 3.2kg

FRONT AND REAR SPEAKERS

System Full range satellite
 Impedance: 4 Ω
 Speaker drivers: 3" full-range speaker
 Frequency response: 150 Hz – 20 kHz
 Dimensions: 95.6 x 198.3 x 75 mm
 (w x h x d)
 Weight: 0.62 kg /each

CENTRE SPEAKER

System Full range satellite
 Impedance: 8 Ω
 Speaker drivers: 2 x 2.5" woofer,
 1 x 2" tweeter
 Frequency response: 150Hz – 20 kHz
 Dimensions: 435 x 93.5 x 67 mm
 (w x h x d)
 Weight: 1.28 kg

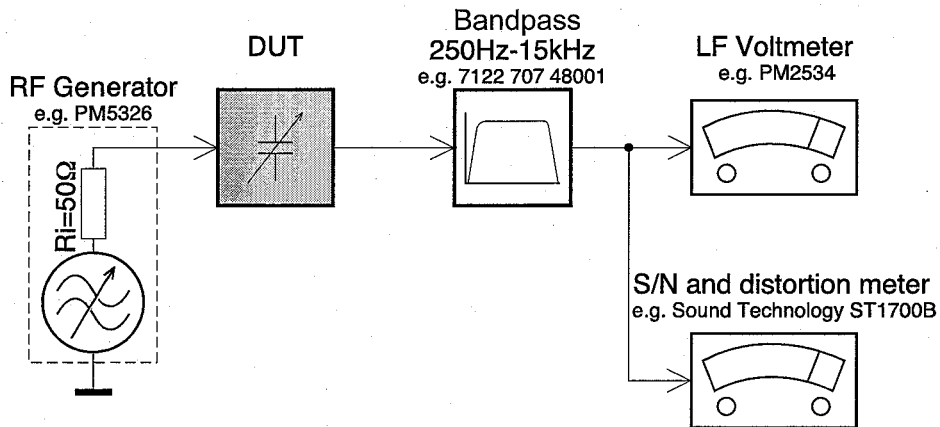
PASSIVE SUBWOOFER

Frequency response: 40 Hz – 150 Hz
 Impedance: 8 Ω
 Subwoofer driver: 8" sub-woofer,
 Dimensions: 159.5 x 355.5 x 370 mm
 (w x h x d)
 Weight: 4.712kg

Specifications subject to change without prior notice.

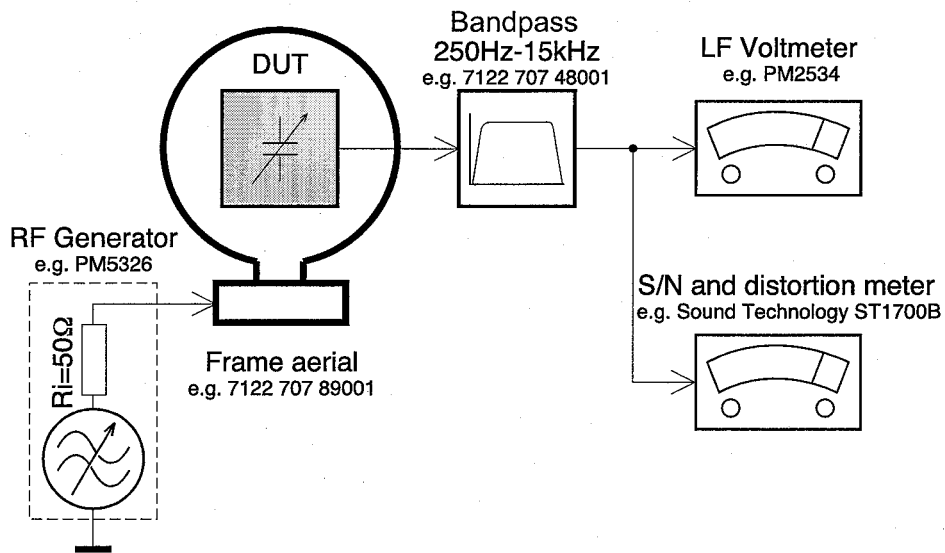
Measurement Setup

Tuner FM



Use a bandpass filter to eliminate hum (50Hz, 100Hz) and disturbance from the pilotone (19kHz, 38kHz).

Tuner AM (MW,LW)



To avoid atmospheric interference all AM-measurements have to be carried out in a Faraday's cage. Use a bandpass filter (or at least a high pass filter with 250Hz) to eliminate hum (50Hz, 100Hz).

SERVICE AIDS

Service Tools:

Universal Torx driver holder	4822 395 91019
Torx bit T10 150mm	4822 395 50456
Torx driver set T6-T20	4822 395 50145
Torx driver T10 extended	4822 395 50423

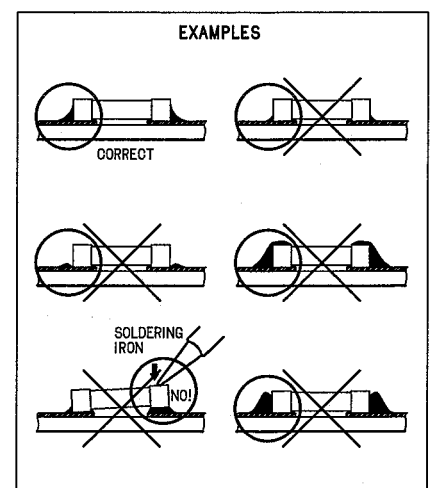
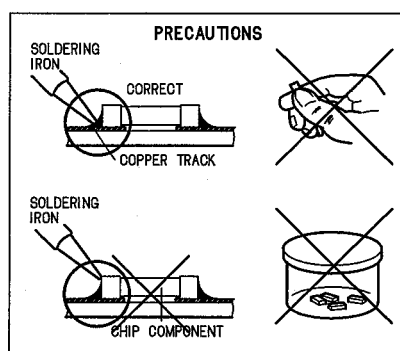
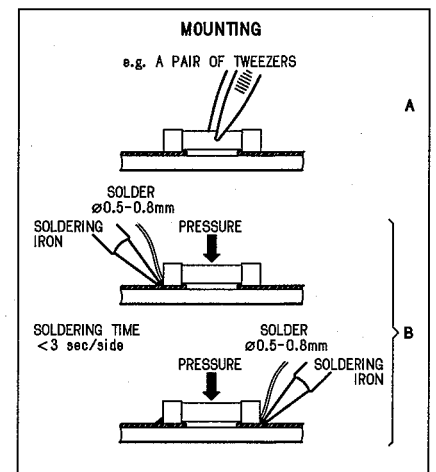
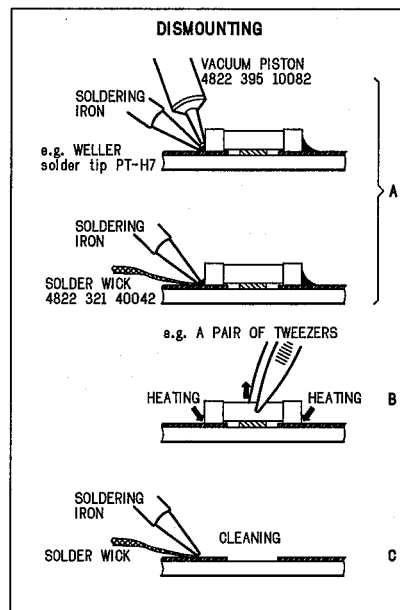
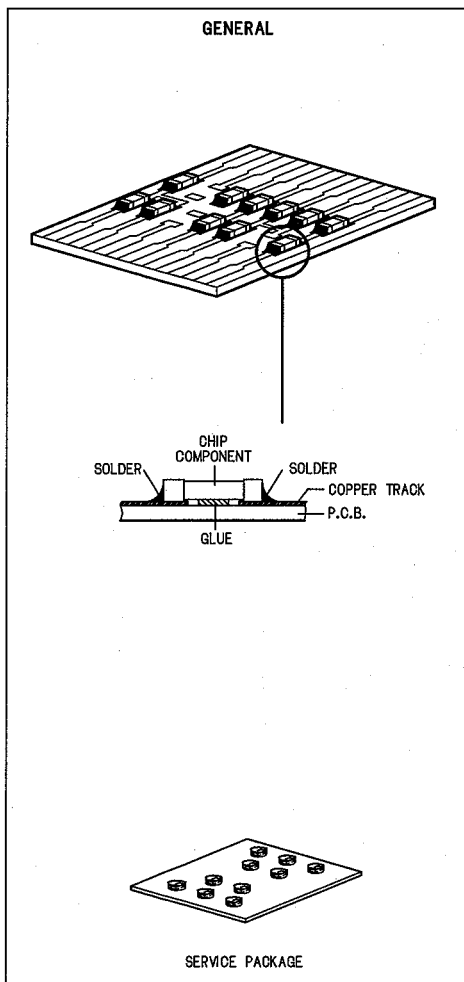
Compact Disc:

SBC426/426A Test disc 5 + 5A	4822 397 30096
SBC442 Audio Burn-in test disc 1kHz	4822 397 30155
SBC429 Audio Signals disc	4822 397 30184
Dolby Pro-logic Test Disc	4822 395 10216

ESD Equipment:

Anti-static table mat - large 1200x650x1.25mm ...	4822 466 10953
anti-static table mat - small 600x650x1.25mm	4822 466 10958
Anti-static wristband	4822 395 10223
Connectorbox (1M Ω)	4822 395 11307
Extension cable (to connect wristband to conn.box)	4822 320 11305
Connecting cable (to connect table mat to conn.box)	4822 320 11306
Earth cable (to Connect product to mat or box) --	4822 320 11308
Complete kit ESD3 (combining all above products)	4822 320 10671
Wristband tester	4822 344 13999

HANDLING CHIP COMPONENTS



(GB) WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically. When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools also at this potential.

(F) ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD). Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation. Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfiler le bracelet serti d'une résistance de sécurité. Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

(D) WARNUNG

Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD). Unsorgfältige Behandlung im Reparaturfall kann die Lebensdauer drastisch reduzieren. Veranlassen Sie, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand verbunden sind mit dem gleichen Potential wie die Masse des Gerätes. Bauteile und Hilfsmittel auch auf dieses gleiche Potential halten.

(NL) WAARSCHUWING

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD). Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen. Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat. Houd componenten en hulpmiddelen ook op hetzelfde potentiaal.

(I) AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD). La loro longevità potrebbe essere fortemente ridotta in caso di non osservazione della più grande cauzione alla loro manipolazione. Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza. Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

(GB) ESD PROTECTION EQUIPMENT

Complete Kit ESD3 (small tablemat, wristband, connection box, extension cable and earth cable 4822 310 10671
Wristband tester 4822 344 13999

(GB)

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified, be used.

Safety components are marked by the symbol Δ .

(NL)

Veiligheidsbepalingen vereisen, dat het apparaat bij reparatie in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast.

De Veiligheidsonderdelen zijn aangeduid met het symbol Δ .

(F)

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisés les pièces de rechange identiques à celles spécifiées.

Les composants de sécurité sont marqués Δ .

(D)

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden; für Reparaturen sind Original-Ersatzteile zu verwenden.

Sicherheitsbauteile sind durch das Symbol Δ markiert.

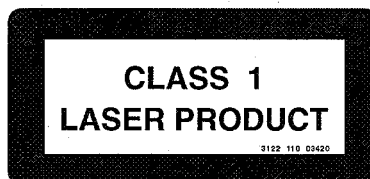
(I)

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambio identici a quelli specificati.

Componenti di sicurezza sono marcati con Δ .

(GB)

After servicing and before returning set to customer perform a leakage current measurement test from all exposed metal parts to earth ground to assure no shock hazard exist, The leakage current must not exceed 0.5mA.

ESD**(GB) Warning !**

Invisible laser radiation when open.
Avoid direct exposure to beam.

(S) Varning !

Osynlig laserstrålning när apparaten är öppnad och spårren är urkopplad. Betrakta ej strålen.

(SF) Varoitus !

Avatussa laitteessa ja suojalukituksen ohitettaessa olet alttiina näkymättömälle laserisäteilylle. Älä katso säteeseen!

(DK) Advarse !

Usynlig laserstrålning ved åbning når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for strålning.

(F)

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne".

Pb(Lead) Free Solder

When soldering, be sure to use the pb free solder.

IDENTIFICATION:

Regardless of special logo (not always indicated)



one must treat all sets from **1 Jan 2005** onwards, according next rules:

Important note: In fact also products of year 2004 must be treated in this way as long as you avoid mixing solder-alloys (lead-free). So best to always use SAC305 and the higher temperatures belong to this.

Due to lead-free technology some rules have to be respected by the workshop during a repair:

- Use only lead-free solder alloy Philips SAC305 with order code 0622 149 00106. If lead-free solder-paste is required, please contact the manufacturer of your solder-equipment. In general use of solder-paste within workshops should be avoided because paste is not easy to store and to handle.
- Use only adequate solder tools applicable for lead-free solder alloy. The solder tool must be able
 - To reach at least a solder-temperature of 400°C,
 - To stabilize the adjusted temperature at the solder-tip
 - To exchange solder-tips for different applications.
- Adjust your solder tool so that a temperature around 360°C – 380°C is reached and stabilized at the solder joint. Heating-time of the solder-joint should not exceed ~ 4 sec. Avoid temperatures above 400°C otherwise wear-out of tips will rise drastically and flux-fluid will be destroyed. To avoid wear-out of tips switch off unused equipment, or reduce heat.
- Mix of lead-free solder alloy / parts with leaded solder alloy / parts is possible but PHILIPS recommends strongly to avoid mixed solder alloy types (leaded and lead-free).
If one cannot avoid or does not know whether product is lead-free, clean carefully the solder-joint from old solder alloy and re-solder with new solder alloy (SAC305).
- Use only original spare-parts listed in the Service-Manuals. Not listed standard-material (commodities) has to be purchased at external companies.
- Special information for BGA-ICs:
 - Always use the 12nc-recognizable soldering temperature profile of the specific BGA (for de-soldering always use the lead-free temperature profile, in case of doubt)
 - Lead free BGA-ICs will be delivered in so-called 'dry-packaging' (sealed pack including a silica gel pack) to protect the IC against moisture. After opening,

dependent of MSL-level seen on indicator-label in the bag, the BGA-IC possibly still has to be baked dry. (MSL=Moisture Sensitivity Level). This will be communicated via AYS-website.

Do not re-use BGAs at all.

- For sets produced before 1.1.2005 (except products of 2004), containing leaded solder-alloy and components, all needed spare-parts will be available till the end of the service-period. For repair of such sets nothing changes.
- On our website www.atyourservice.ce.Philips.com you find more information to:
 - BGA-de-/soldering (+ baking instructions)
 - Heating-profiles of BGAs and other ICs used in Philips-sets

You will find this and more technical information within the "magazine", chapter "workshop news".

For additional questions please contact your local repair-helpdesk.

System , Region Code , etc. Setting Produre

1)System Reset

- a) switch source to DISC 6CH
- b) press and hold ►► button on front panel
- c) VFD will display reset, then sysytem power down and return to original default setting.

2)Version & Region Code Change

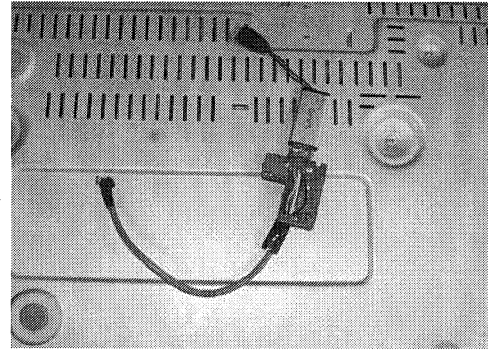
- a) switch source to DISC 6CH
- b) press"9" "1" "0" on R/C
- c) press volume + / - key on R/C to choose desired one
5 regions:
EU 12 / UK 05 / APAC 98 / US 37 / US 98
- d) press OK key to comfirm

3)Check on the Sofeware Version

- a) switch source to DISC 6CH
- b) press "1" "5" "9" button on R/C
- c) VFD will display the version

4)Upgrading new sofeware

- a) copy file HTR5200.ROM to root directory of USB
- b) Power on, switch source to 6CH
- c) insert the plug of the upgraded board with USB into the bottom of the main unit as below:



- d) VFD will display UPGRADE

NOTE:

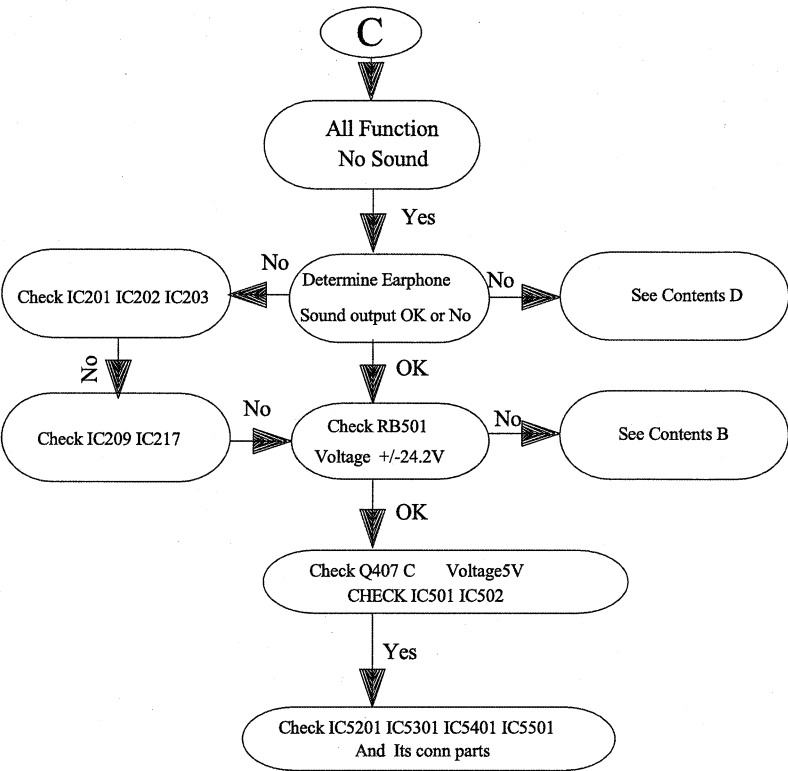
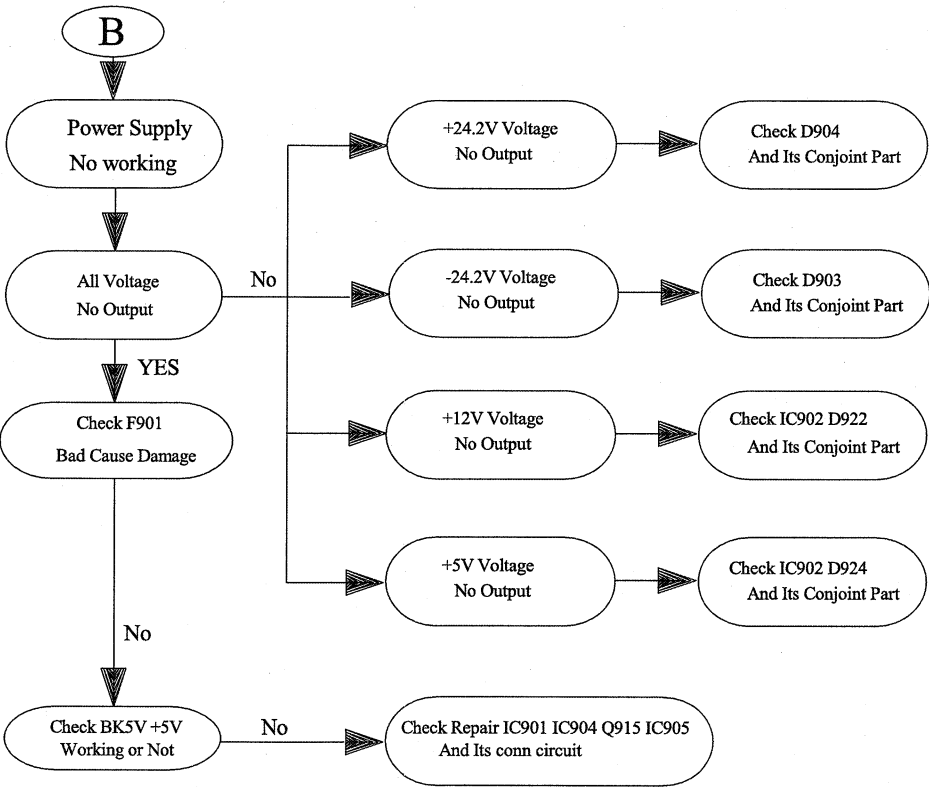
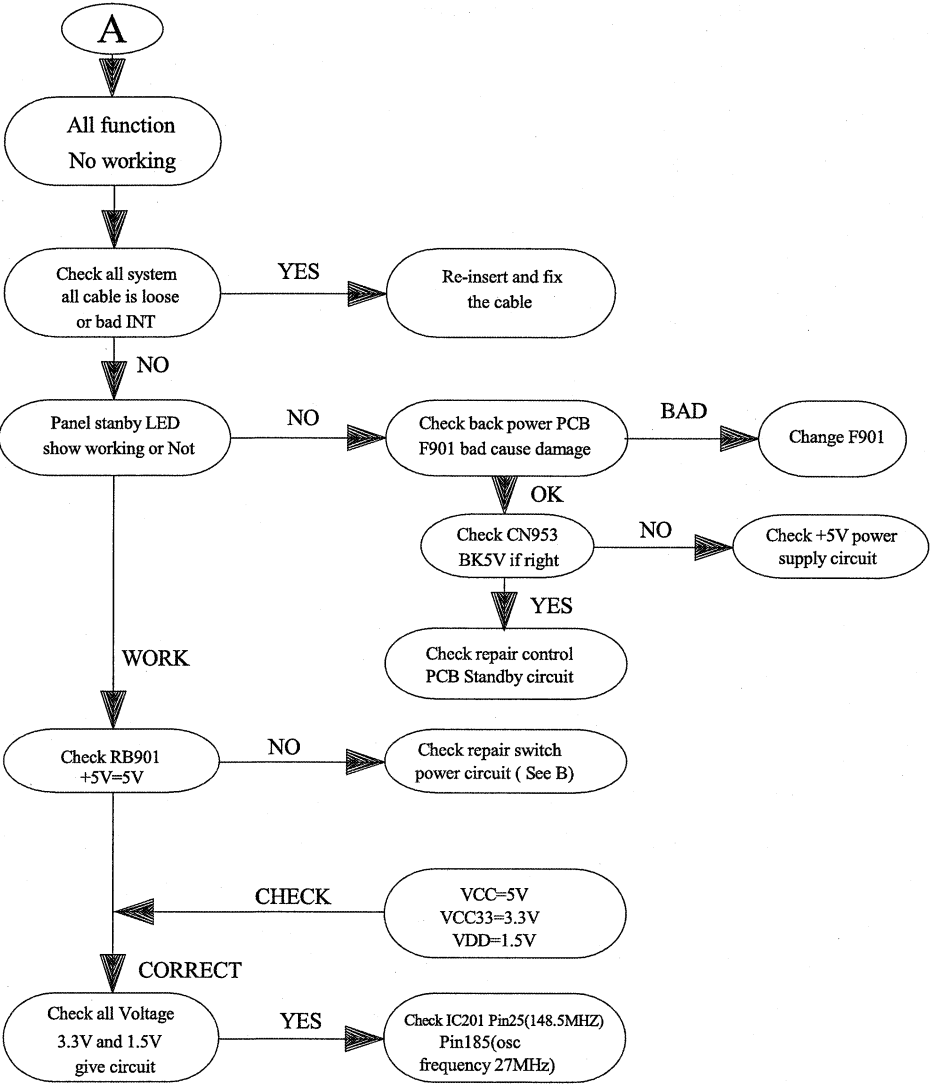
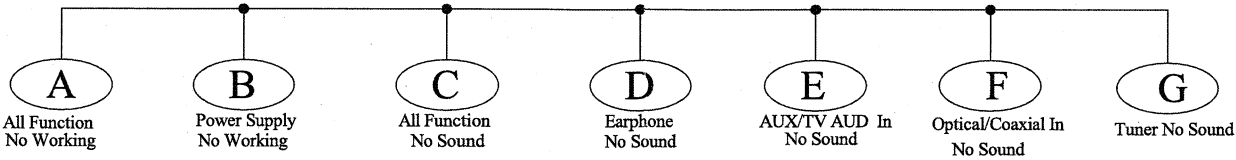
During software upgrade ,you must not press any key and power down.

After software upgrading completed ,move USB will display on VFD ,now ,you must power down.

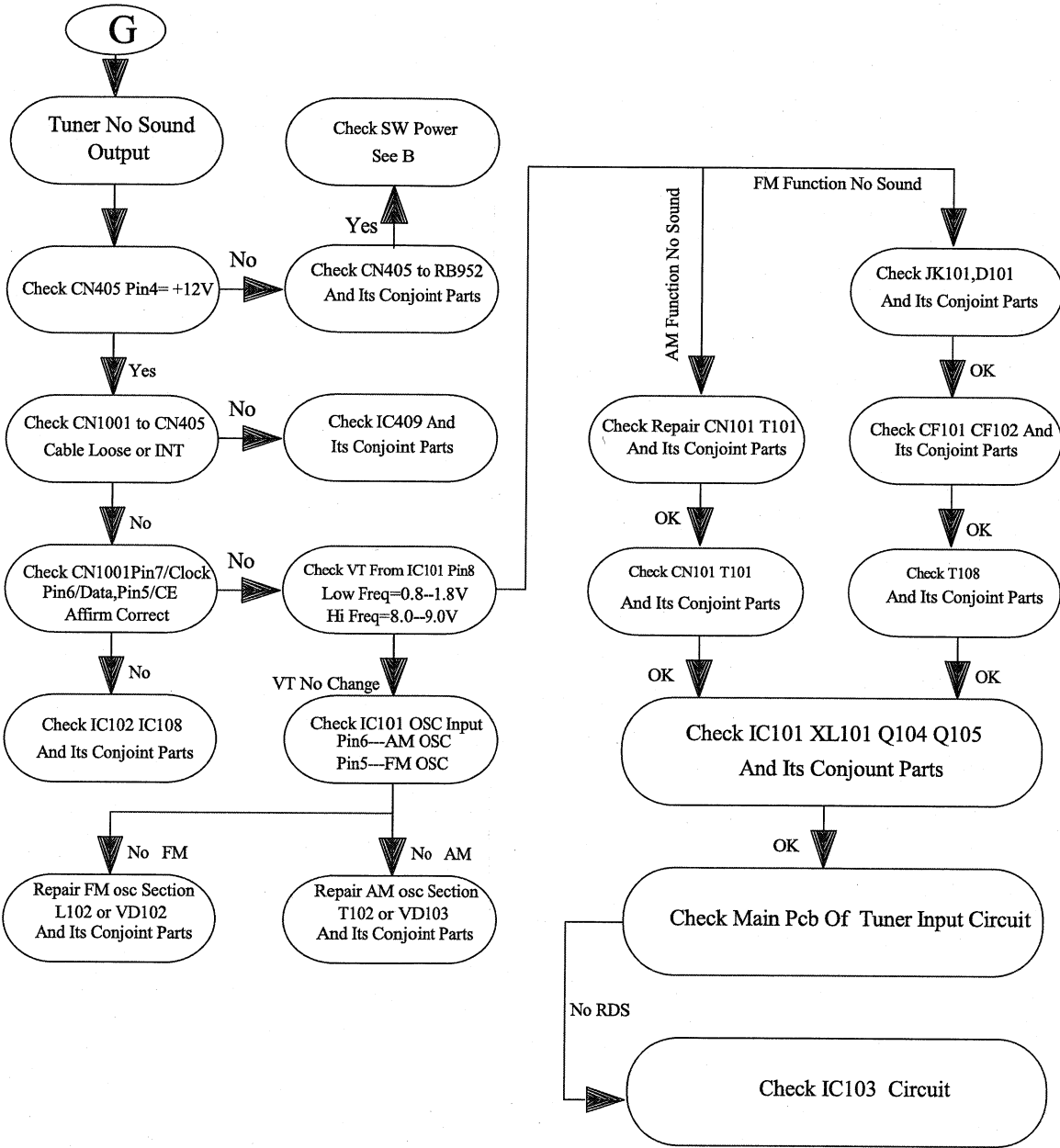
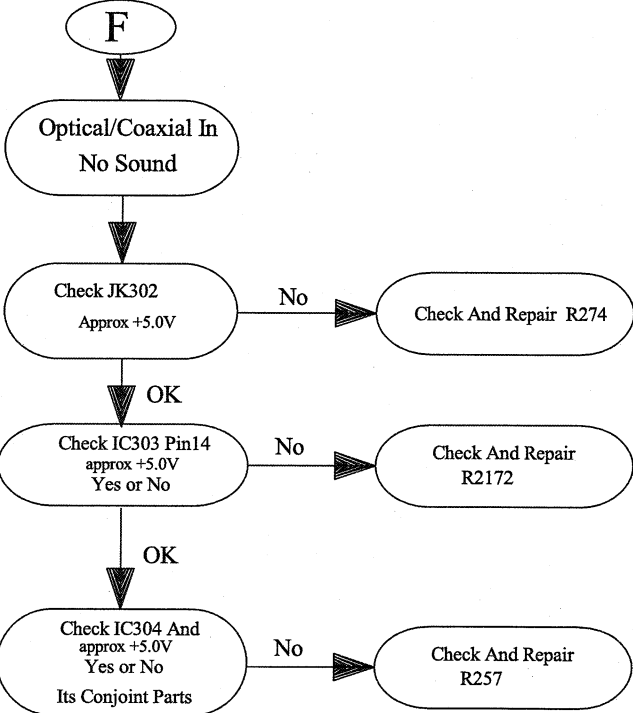
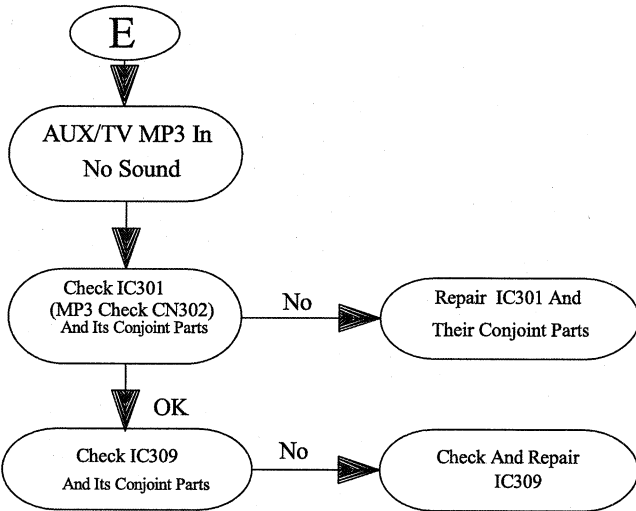
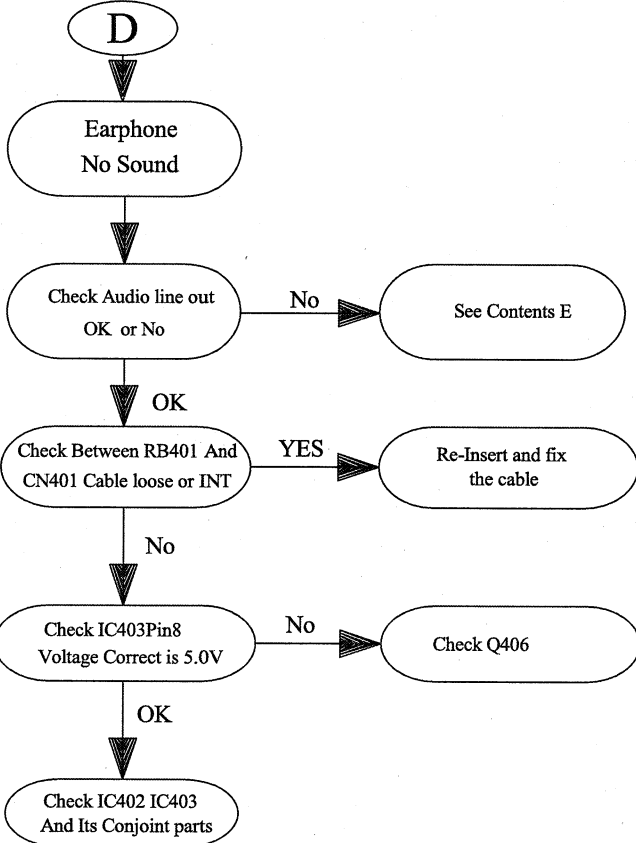
CAUTION !

This information is confidential and may not be distributed. Only a qualified service person should reprogram the Region Code.

MAIN UNIT REPAIR CHART 1/2



MAIN UNIT REPAIR CHART 2/2



DISASSEMBLY INSTRUCTIONS

Dismantling of the top cover Assembly

- 1) Loosen 5 screws and remove the Top Cover by lifting the rear portion upwards before sliding it out towards the rear.
 - 3 screws "A" on the back as show in figure 1
 - 1 screws "B" each on the left & right side as show in figure 2

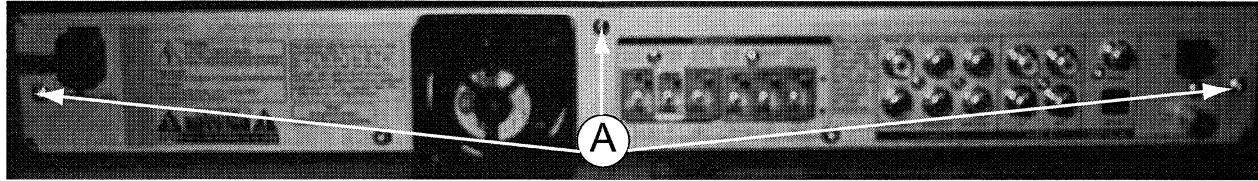


Figure 1

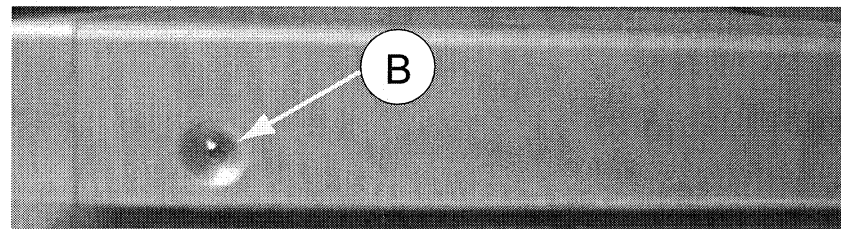


Figure 2

Dismantling of the front panel Assembly

- 1) Loosen 6 screws & lift up the top edge of Front Panel assembly to free some catches before sliding it out towards the front.
 - 1 screw "C" on the inside as show in figure 3
 - 1 screw "D" each on the left & right side as show in figure 4
 - 3 screws "E" on the bottom as show in figure 5

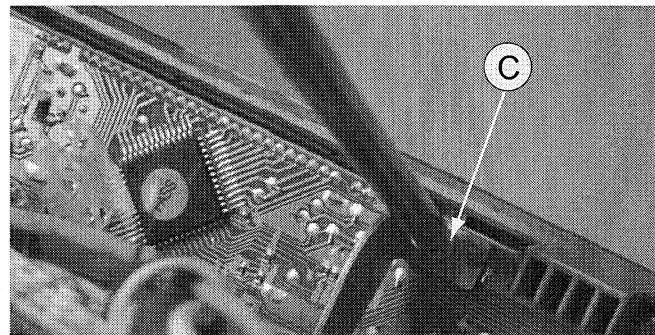


Figure 3

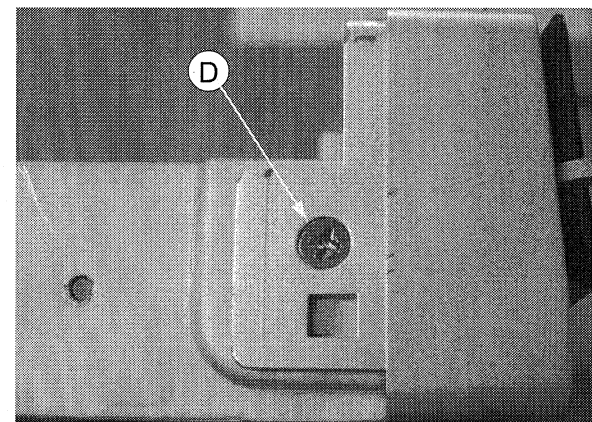


Figure 4

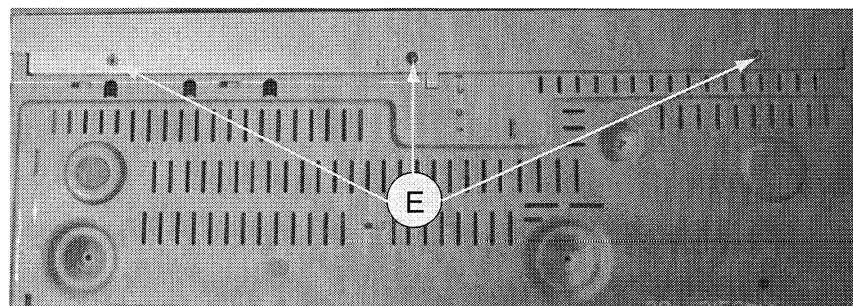


Figure 5

Dismantling of the Main PCB

- 1) Loosen 4 screw "F" on the top of main board as shown in figure 6.
- 2) Loosen 6 screw "G" at the back panel as shown in figure 7.

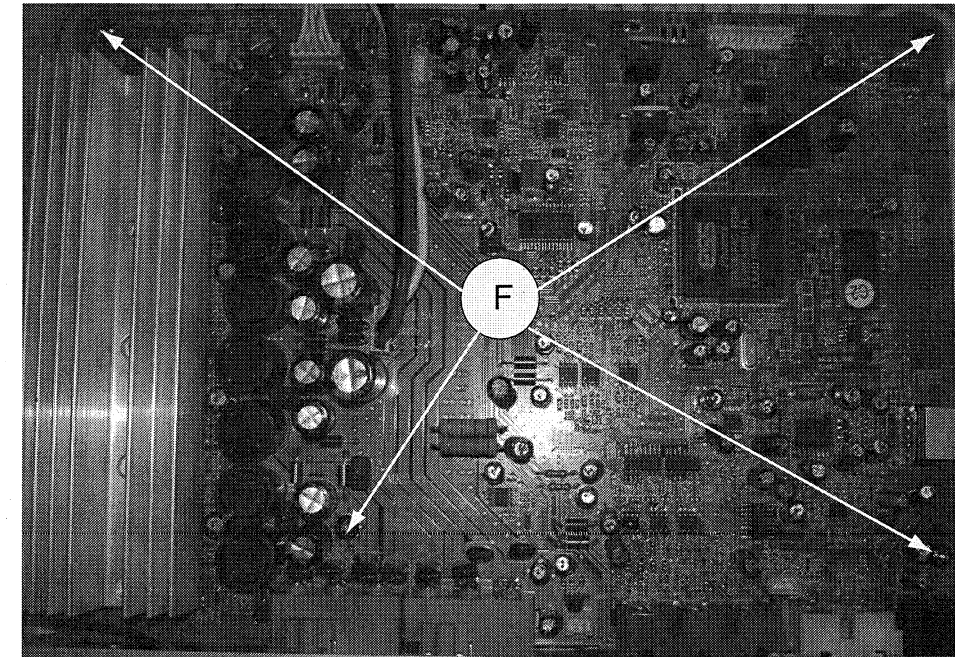


Figure 6

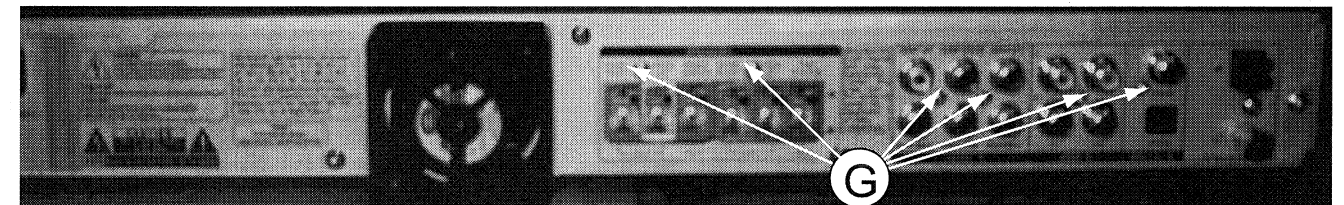


Figure 7

Dismantling of the Control Board

- 1) Loosen 13 screws "H" on the top of control board as shown in figure 8

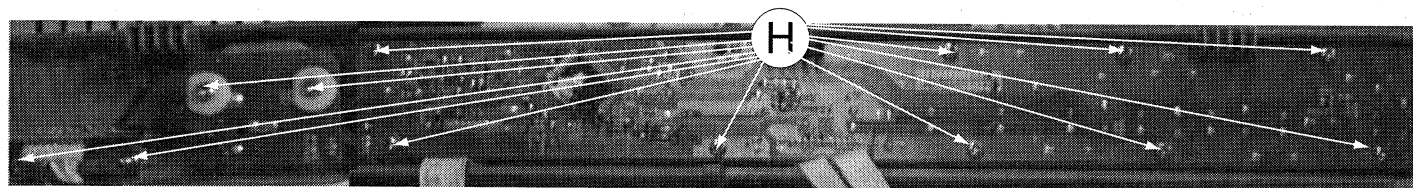


Figure 8

Dismantling of the Power Board

- 1) Loosen 5 screws "I" at the top of the Power Board as shown in figure 9

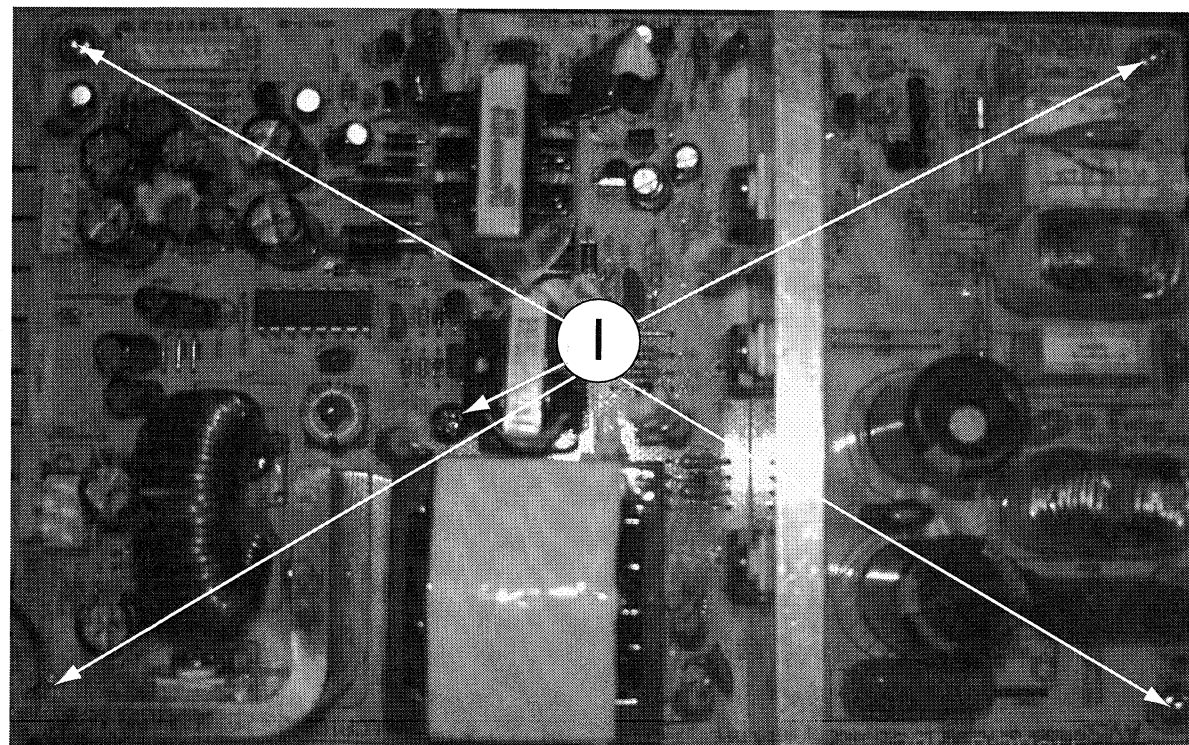
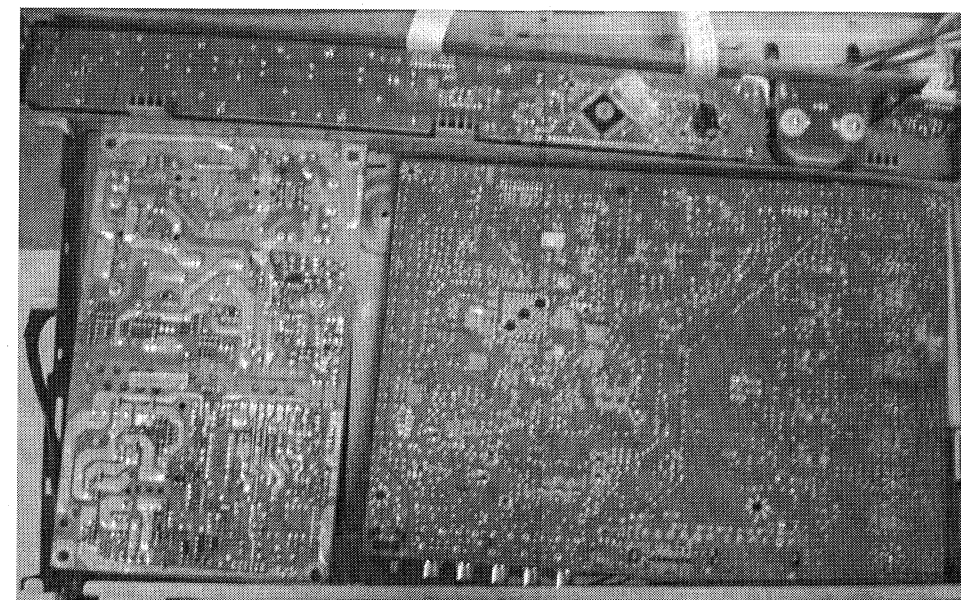
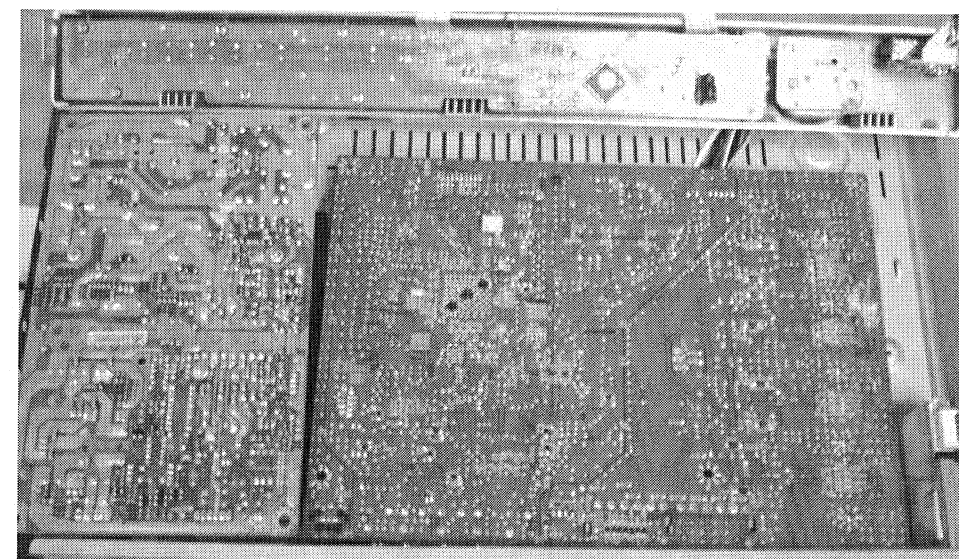


Figure 9

Service Position

Service A



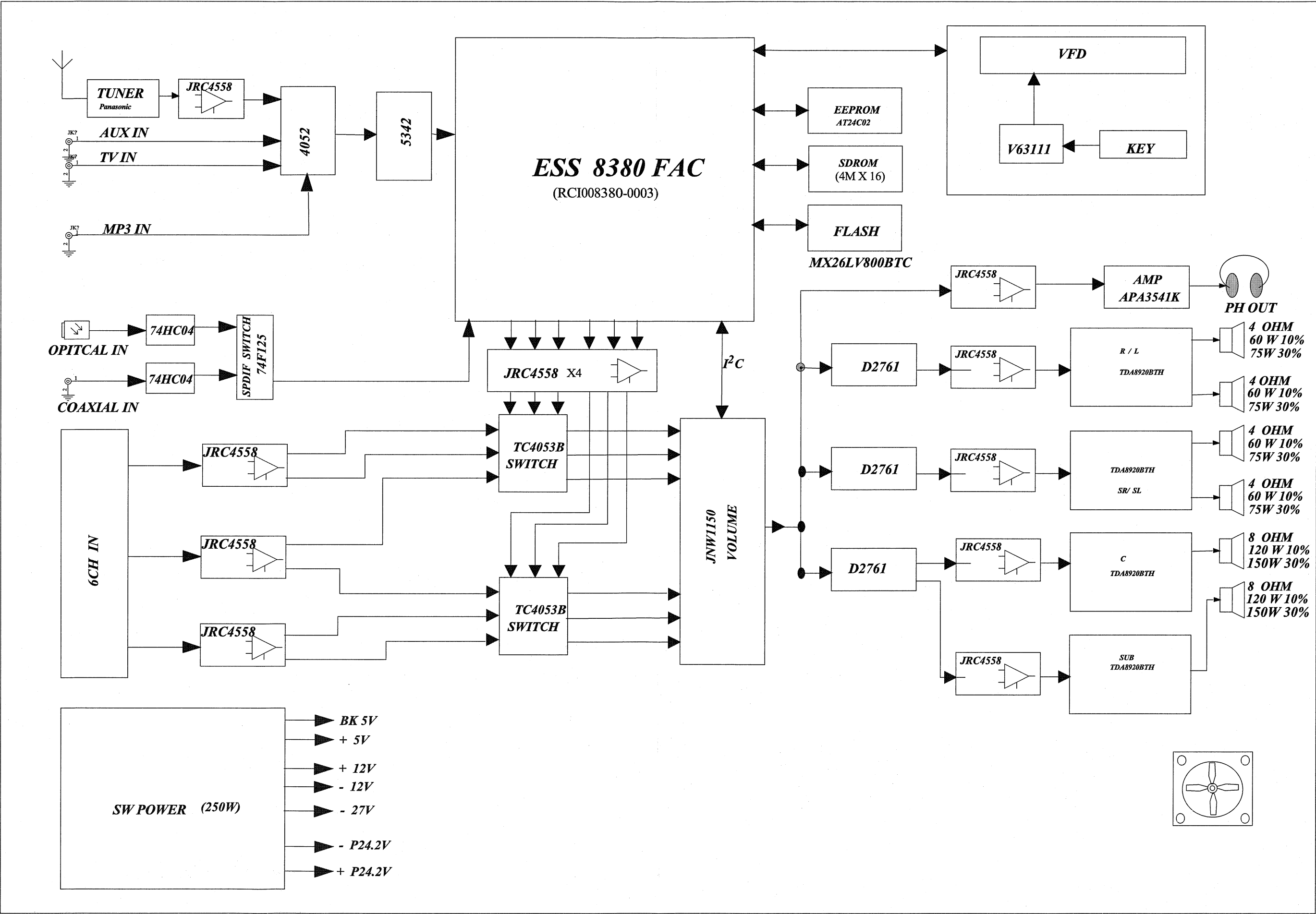
Service B

Note: In some service positions the components or copper patterns of one board may risk touching its neighbouring pc boards or metallic parts. To prevent such short-circuit use a piece of hard paper or other insulating material between them.

BLOCK DIAGRAM

4 - 1

4 - 1



AVIS: UTILISER UN FUSIBLE DE REMPLACEMENT DE MEME TYPE.

LCP106830-0001

PHOEN PCB

VOL PCB

CONTROL PCB

MAIN PCB

POWER PCB

AC INPUT

WARNING: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE REPLACE WITH SAME TYPE FUSE.

VER: PR(23-11)

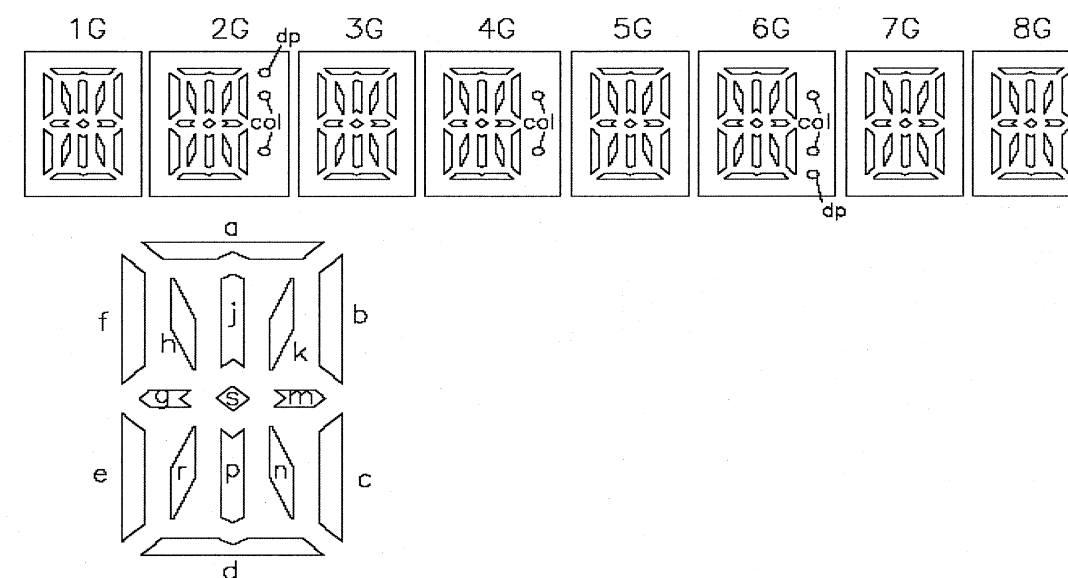
Table 1: Component Values

U	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	

CONTROL BOARD

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PCB Layout Top & Bottom View(phone & vol pcb)	5-5



	1G	2G	3G	4G	5G	6G	7G	8G
P1	a	a	a	a	a	a	a	a
P2	j . p	j . p	j . p	j . p	j . p	j . p	j . p	j . p
P3	h	h	h	h	h	h	h	h
P4	k	k	k	k	k	k	k	k
P5	b	b	b	b	b	b	b	b
P6	f	f	f	f	f	f	f	f
P7	m	m	m	m	m	m	m	m
P8	g	g	g	g	g	g	g	g
P9	c	c	c	c	c	c	c	c
P10	e	e	e	e	e	e	e	e
P11	r	r	r	r	r	r	r	r
P12	n	n	n	n	n	n	n	n
P13	d	d	d	d	d	d	d	d
P14	—	dp	—	col	—	col	—	—
P15	s	s	s	s	s	s	s	s
P16	—	col	—	—	—	dp	—	—

PIN CONNECTION

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CONNECTION	F	F	NP	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12
PIN NO.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
CONNECTION	P13	P14	P15	P16	1G	2G	3G	4G	5G	6G	7G	8G	NP	F	F

Note: F: Filament P: Anode G: Grid NP: No pin

VOLTAGE

Q2051			
Pin NO	b	c	e
Voltage	3.9	3.6	0

Q2052			
Pin NO	b	c	e
Voltage	3.9	4.2	3.6

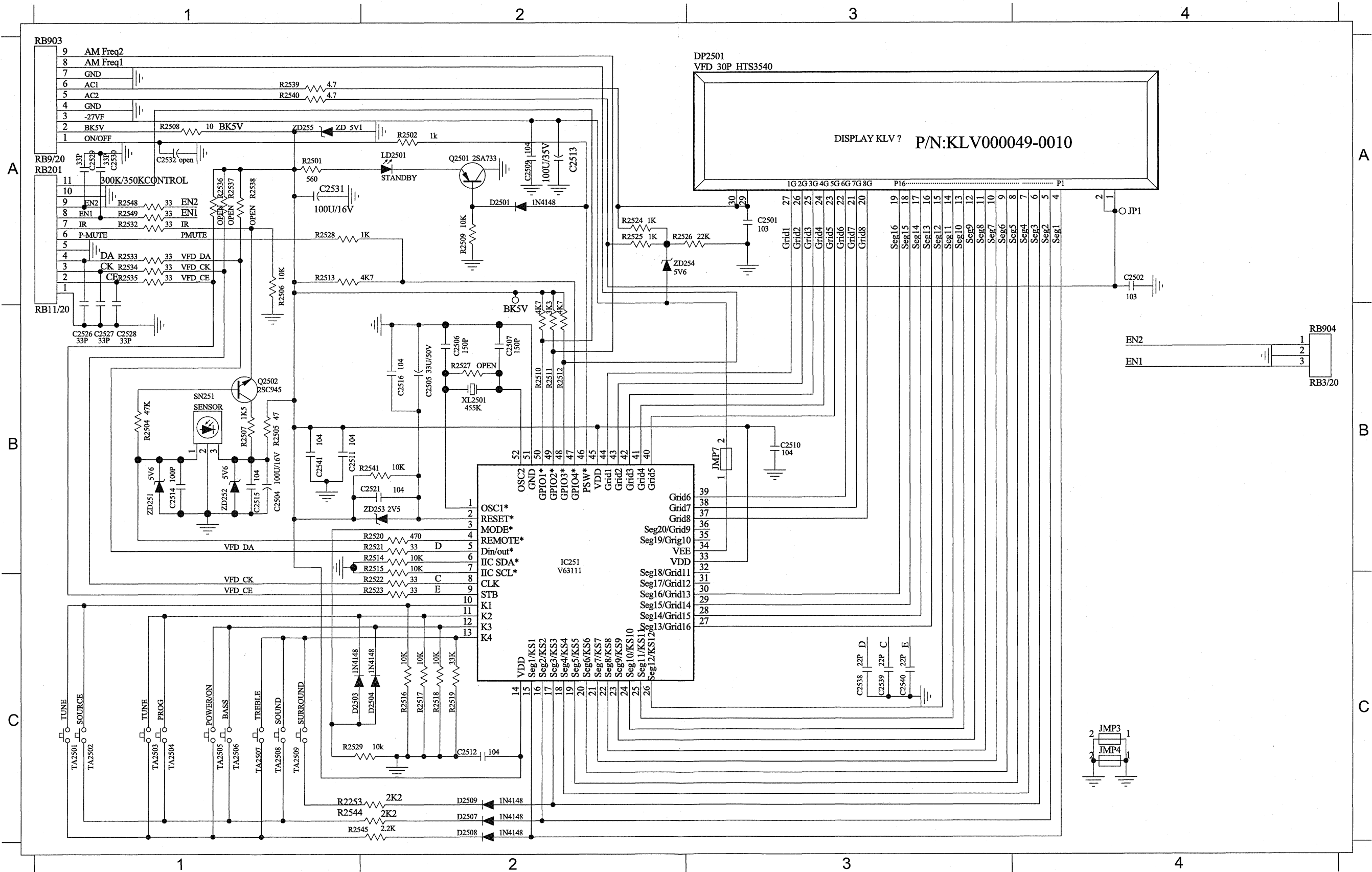
IC251 (V63111)																				
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	0	4.3	0	4.3	3.3	0	0	5	5	0	0	0	4.5	-13.9	-23	-27.1	-37.1	-23	-16.4	20
Pin NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Voltage	20	-18.5	-18.5	-27.1	-24	-27.1	-14.1	-25.1	0	-23.1	-25	-25	4.5	-27	0	-25.3	-25	0	-25.3	-25.3
Pin NO	41	42	43	44	45	46	47	48	49	50	51	52								
Voltage	-25	-25	-25	-25	-25	4.5	0	0	0	0	0	2.2								

CIRCUIT DIAGRAM (control pcb)

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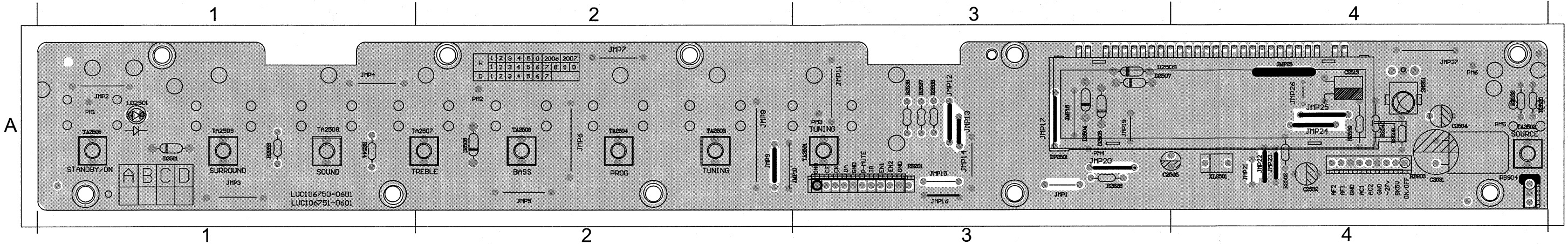
5 - 3

C2501	A3	C2509	A2	C2515	B1	C2529	A1	C2541	B1	D2509	C2	LD2501	A2	R2504	B1	R2510	B2	R2516	C2	R2522	C2	R2529	C1	R2540	A1	RB201	A1	TA2503	C1	TA2509	C1	ZD255	A1
C2502	A4	C2510	B3	C2516	B2	C2530	A1	D2501	A2	DP2501	A3	Q2501	A2	R2505	B1	R2511	B2	R2517	C2	R2523	C2	R2532	A1	R2541	B2	RB903	A1	TA2504	C1	XL2501	B2		
C2504	B1	C2511	B1	C2521	B2	C2531	A1	D2503	C1	IC251	B2	Q2502	B1	R2506	A1	R2512	B2	R2518	C2	R2524	A2	R2533	A1	R2544	C1	RB904	B4	TA2505	C1	ZD251	B1		
C2505	B2	C2512	C2	C2526	B1	C2538	C3	D2504	C2	JMP3	C4	R2253	C1	R2507	B1	R2513	A1	R2519	C2	R2525	A2	R2534	A1	R2545	C1	SN251	B1	TA2506	C1	ZD252	B1		
C2506	B2	C2513	A2	C2527	B1	C2539	C3	D2507	C2	JMP4	C4	R2501	A1	R2508	A1	R2514	B2	R2520	B2	R2526	A2	R2535	A1	R2548	A1	TA2501	C1	TA2507	C1	ZD253	B2		
C2507	B2	C2514	B1	C2528	B1	C2540	C3	D2508	C2	JMP7	B3	R2502	A2	R2509	A2	R2515	B2	R2521	B2	R2528	A1	R2539	A1	R2549	A1	TA2502	C1	TA2508	C1	ZD254	A2		



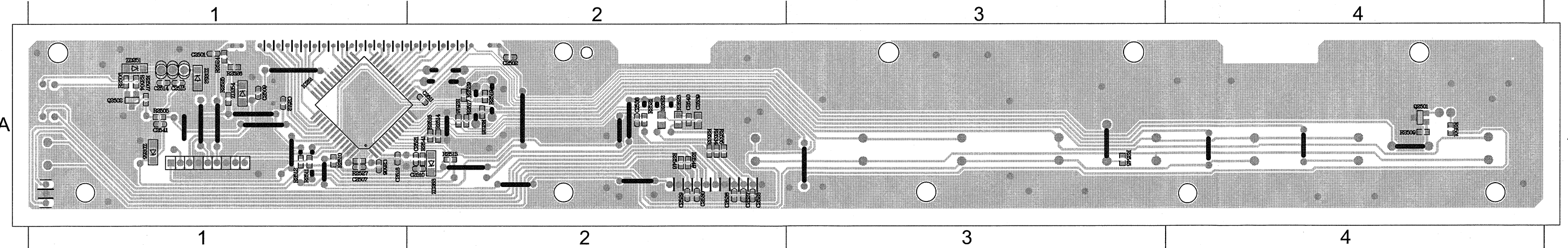
PCB LAYOUT - TOP VIEW (control pcb)

D2501	A1	LD2501	A1	TA2506	A1	JMP10	A2	JMP8	A2	TA2507	A2	D2507	A3	JMP11	A3	JMP15	A3	JMP19	A3	TA2501	A3	JMP21	A4	JMP25	A4	R2502	A4	R2539	A4	SN251	A4
JMP2	A1	R2253	A1	TA2508	A1	JMP5	A2	JMP9	A2	C2505	A3	D2509	A3	JMP12	A3	JMP16	A3	JMP20	A3	C2504	A4	JMP22	A4	JMP26	A4	R2508	A4	R2540	A4	TA2502	A4
JMP3	A1	R2544	A1	TA2509	A1	JMP6	A2	TA2503	A2	D2503	A3	DP2501	A3	JMP13	A3	JMP17	A3	R2528	A3	C2513	A4	JMP23	A4	JMP27	A4	R2520	A4	RB903	A4	XL2501	A4
JMP4	A1	TA2505	A1	D2508	A2	JMP7	A2	TA2504	A2	D2504	A3	JMP1	A3	JMP14	A3	JMP18	A3	RB201	A3	C2531	A4	JMP24	A4	JMP28	A4	R2532	A4	RB904	A4		



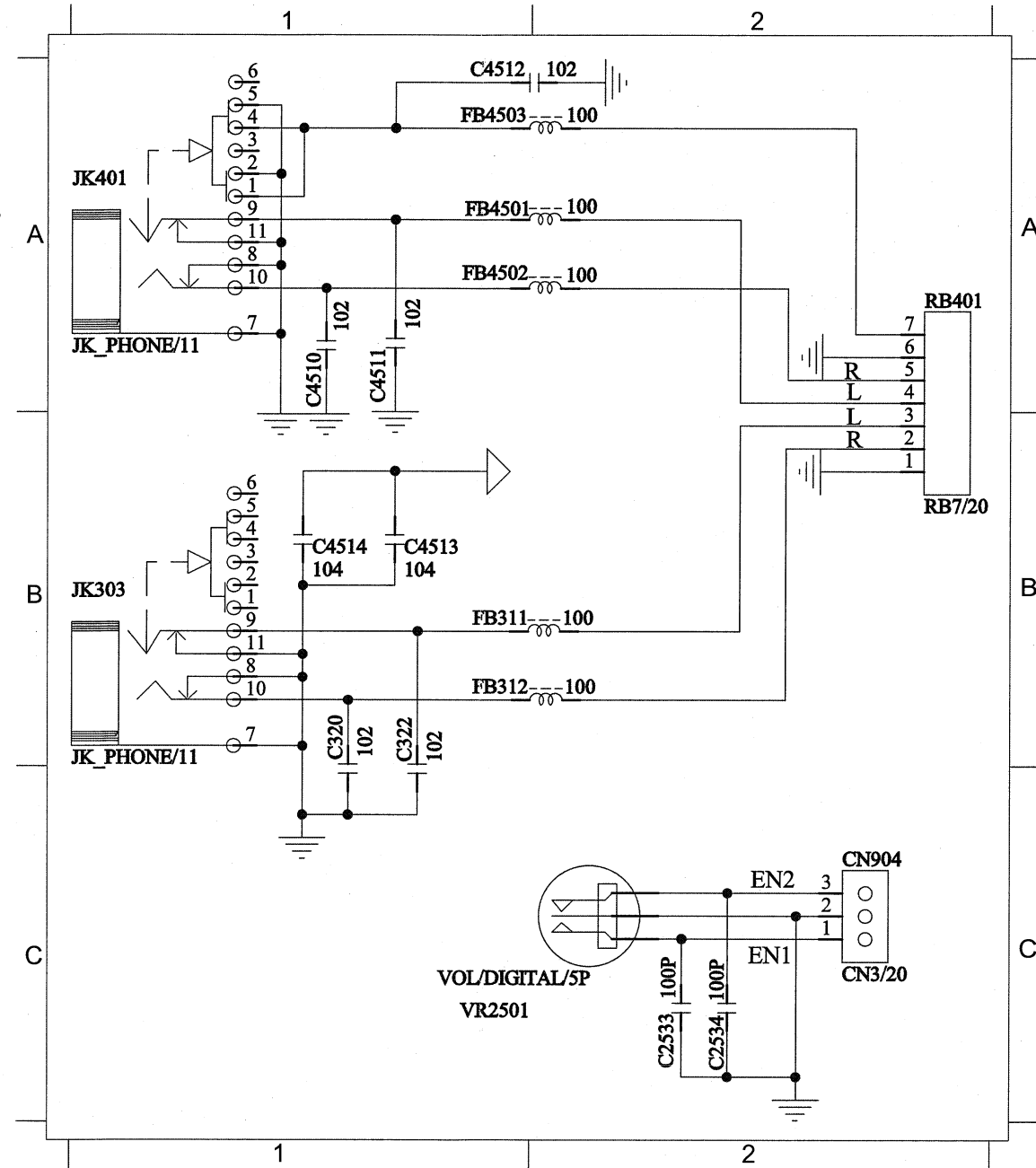
PCB LAYOUT - BOTTOM VIEW (control pcb)

C2501	A1	C2512	A1	C2541	A1	R2505	A1	R2511	A1	R2526	A1	ZD255	A1	C2521	A2	C2529	A2	C2540	A2	R2516	A2	R2521	A2	R2533	A2	R2548	A2	Q2501	A4
C2506	A1	C2514	A1	IC251	A1	R2506	A1	R2512	A1	ZD251	A1	C2502	A2	C2526	A2	C2530	A2	R2513	A2	R2517	A2	R2522	A2	R2534	A2	R2549	A2	R2501	A4
C2507	A1	C2515	A1	Q2502	A1	R2507	A1	R2524	A1	ZD252	A1	C2510	A2	C2527	A2	C2538	A2	R2514	A2	R2518	A2	R2523	A2	R2535	A2	ZD253	A2	R2509	A4
C2509	A1	C2516	A1	R2504	A1	R2510	A1	R2525	A1	ZD254	A1	C2511	A2	C2528	A2	C2539	A2	R2515	A2	R2519	A2	R2529	A2	R2541	A2	R2545	A3		



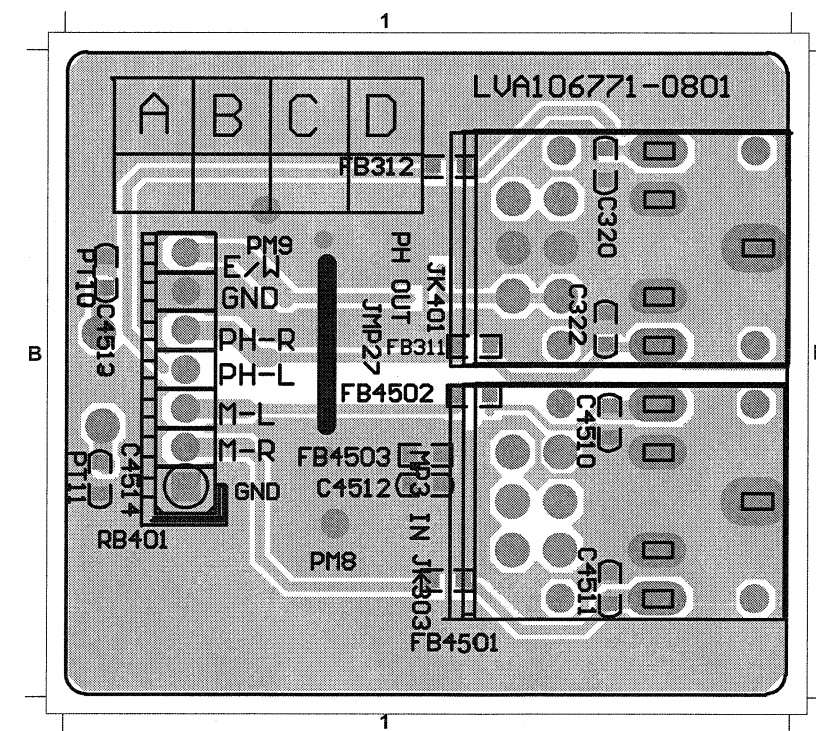
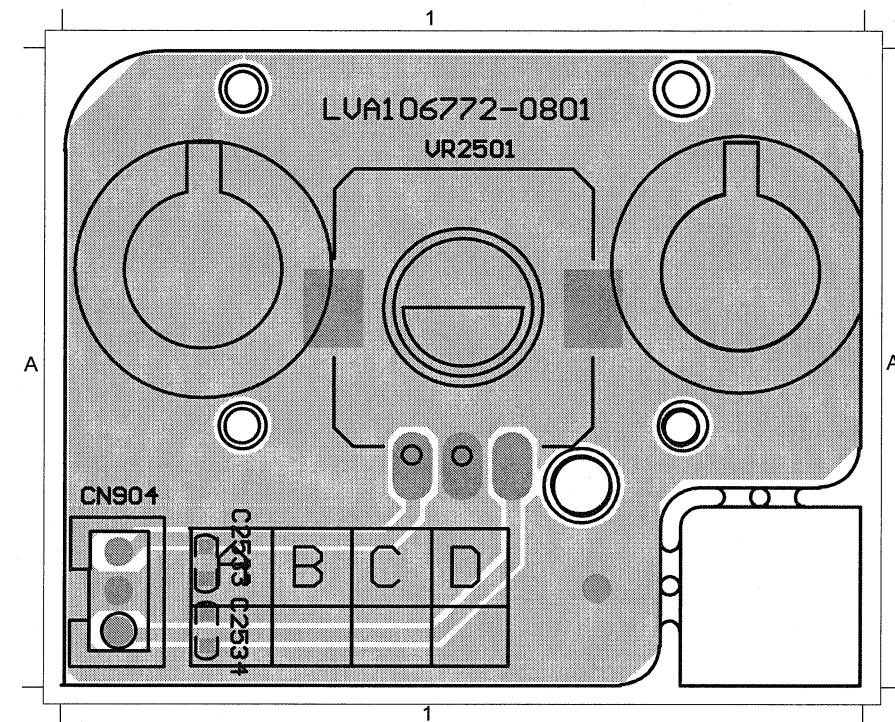
CIRCUIT DIAGRAM (phone & vol pcb)

C2533	C2	C322	B1	C4512	A1	CN904	C2	FB4501	A1	JK303	B1	VR2501	C2
C2534	C2	C4510	A1	C4513	B1	FB311	B1	FB4502	A1	JK401	A1		
C320	B1	C4511	A1	C4514	B1	FB312	B1	FB4503	A1	RB401	A2		



PCB LAYOUT - TOP VIEW (phone&vol pcb)

C2533	A1	C322	B1	C4512	B1	CN904	A1	FB4501	B1	JK303	B1	PM9	B1
C2534	A1	C4510	B1	C4513	B1	FB311	B1	FB4502	B1	JK401	B1	RB401	B1
C320	B1	C4511	B1	C4514	B1	FB312	B1	FB4503	B1	JMP27	B1	VR2501	A1

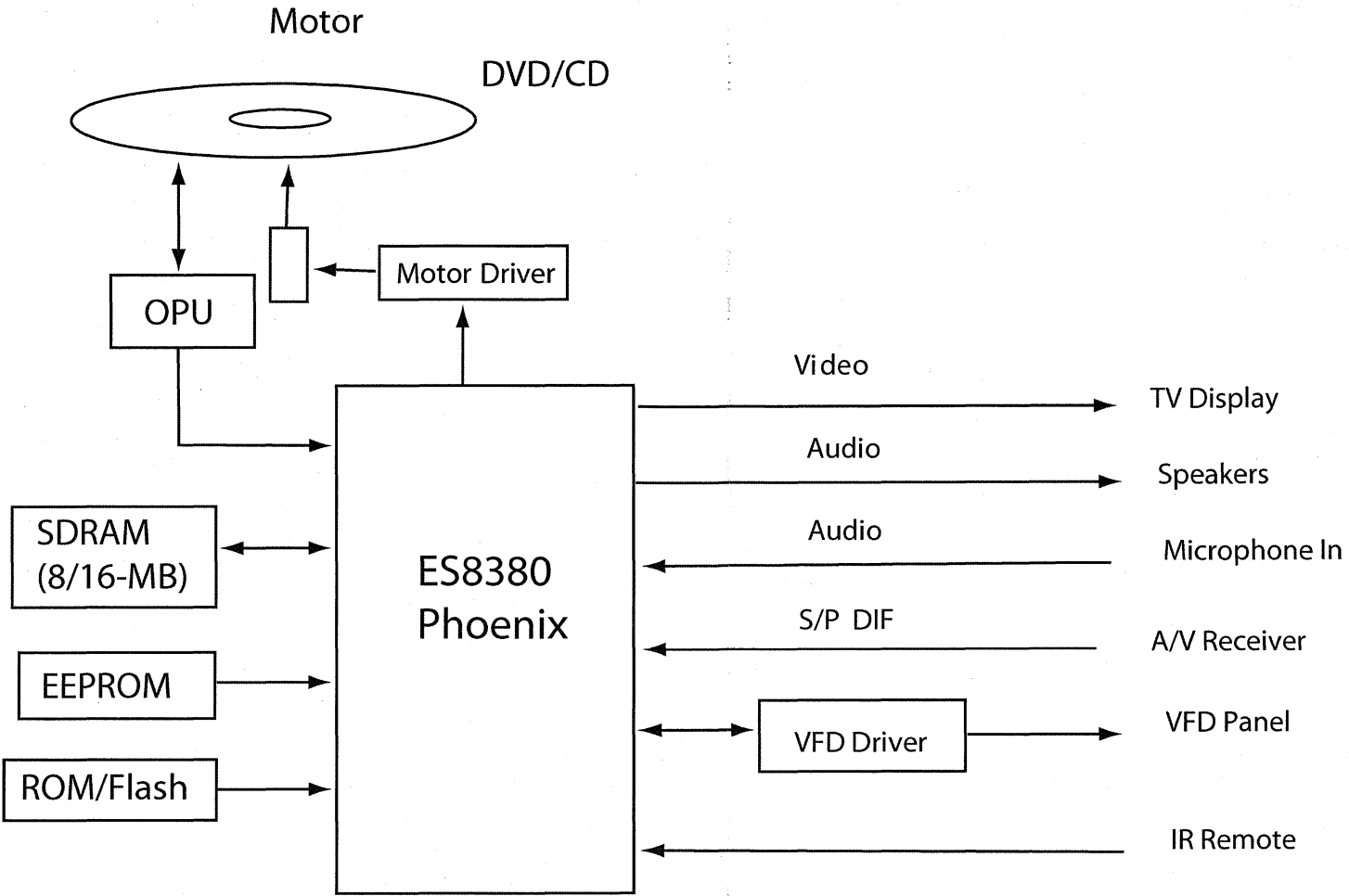


MAIN BOARD

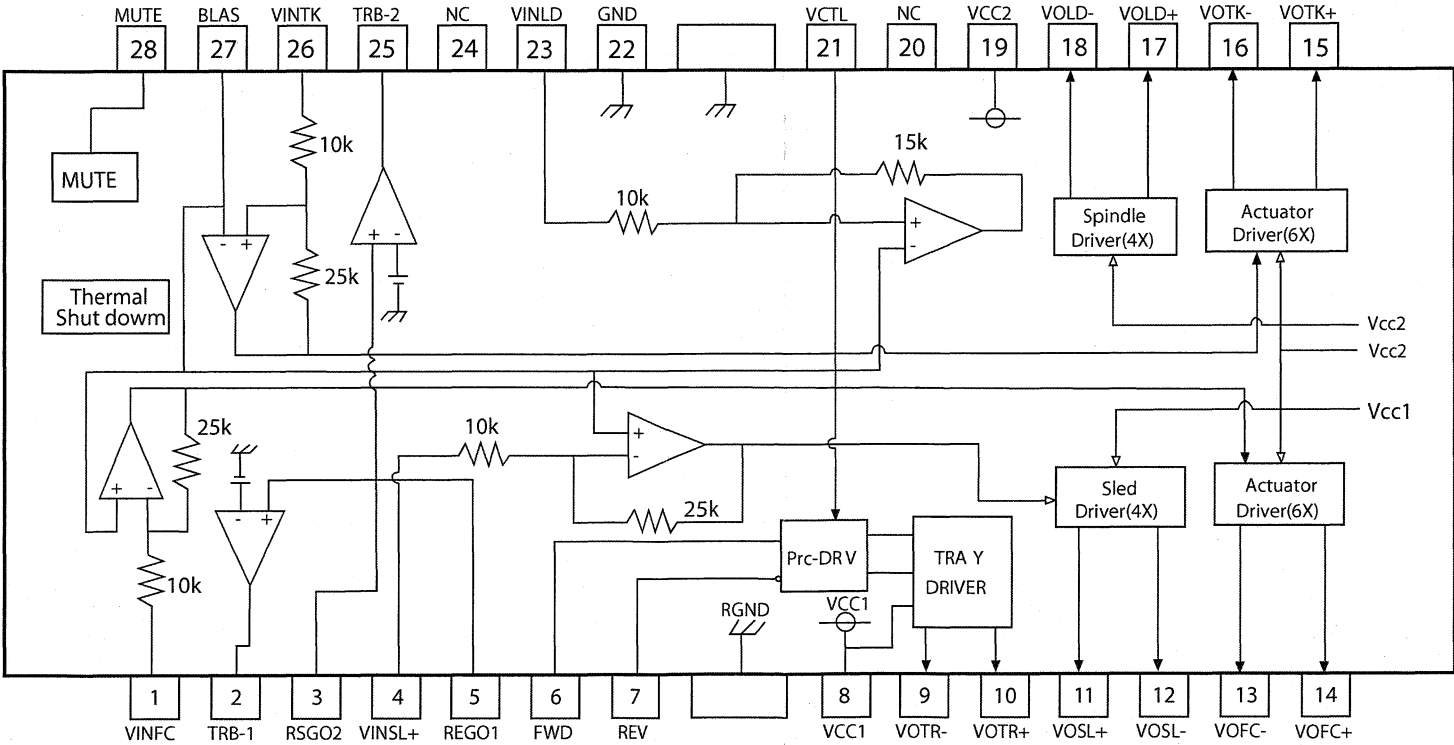
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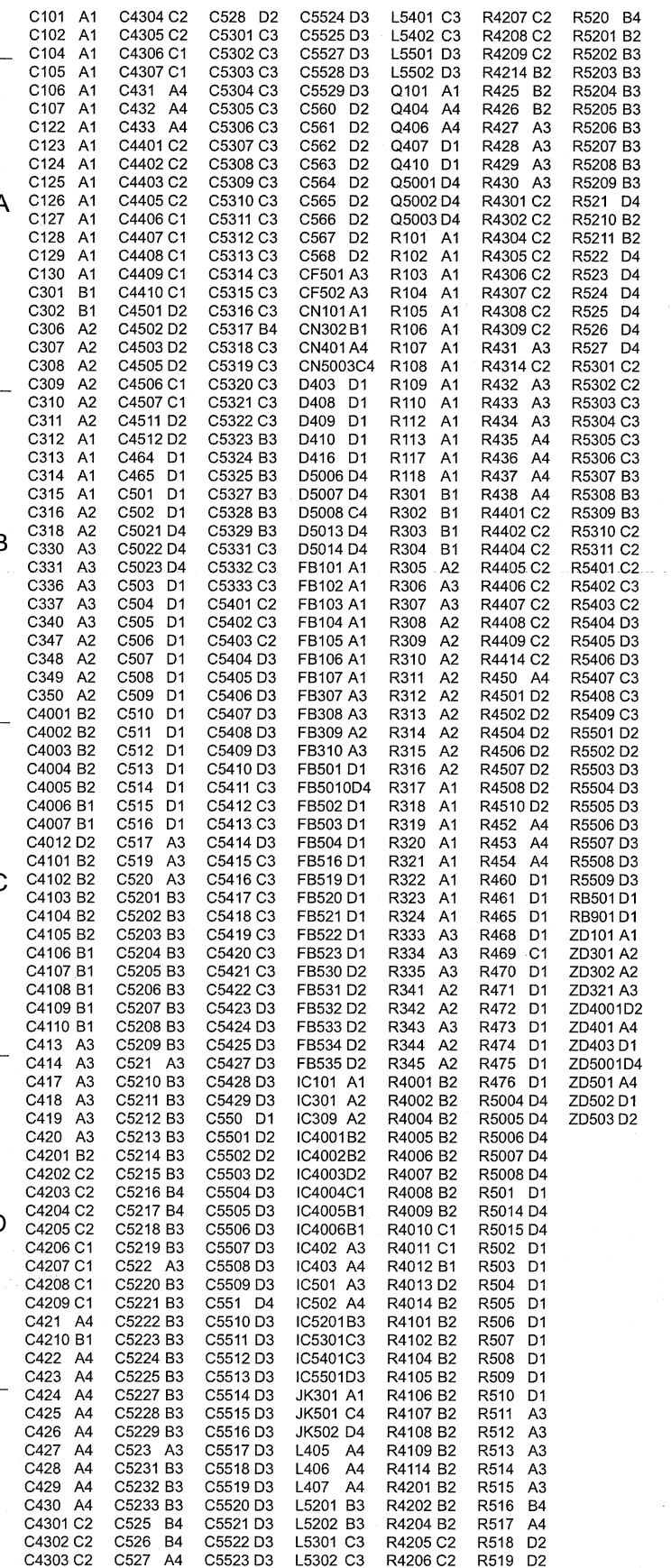
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PCB Layout Bottom View	6-5
Voltage	6-6

INTERNAL IC DIAGRAM - ES8380FAC^{6 - 1}

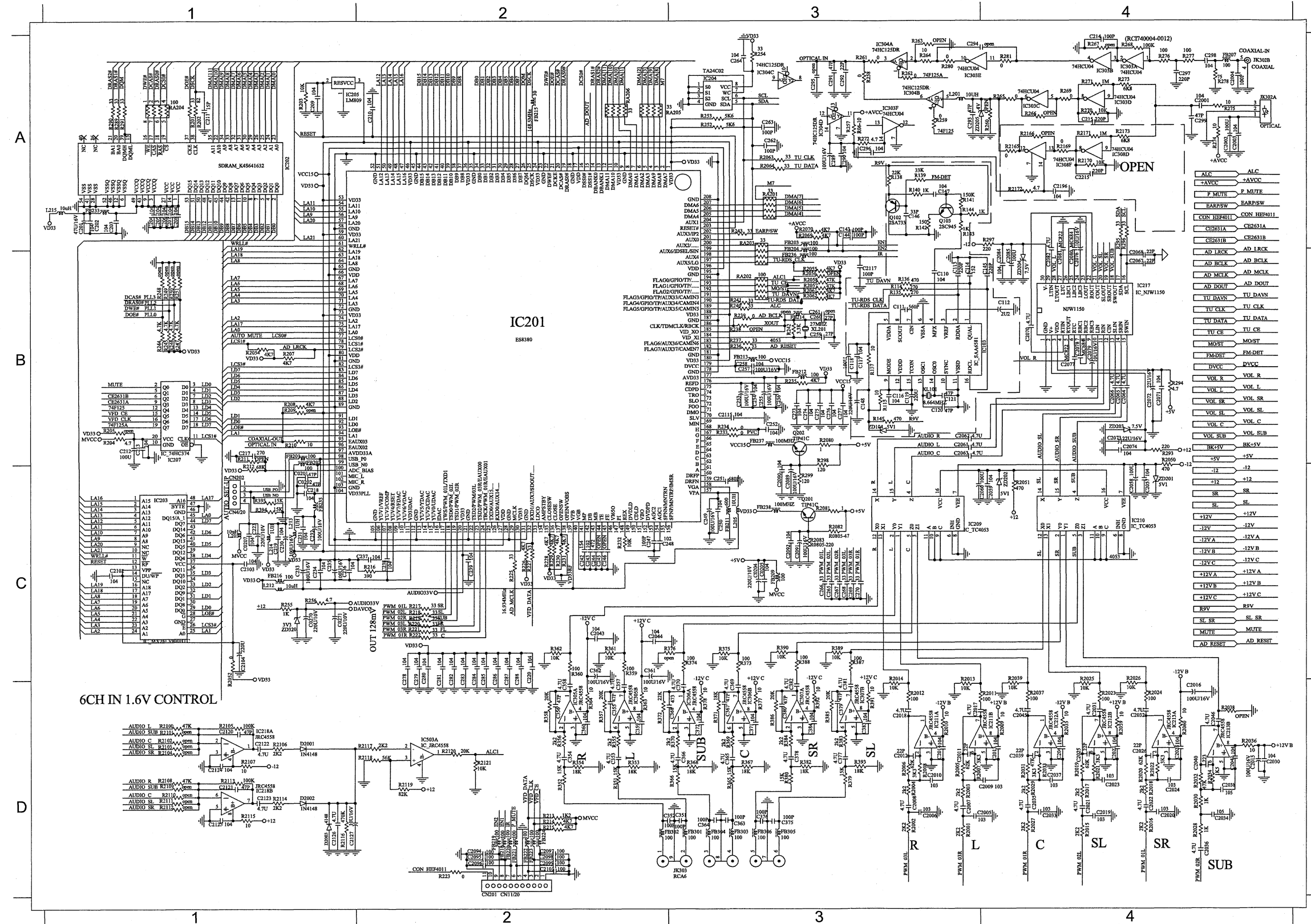


INTERNAL IC DIAGRAM - V5888S HOSP





Circuit Diagram(main pcb)



C0201 C1	C2068 B4	C273 B3	FB302 D3	R2033 D4	R264 A2
C0202 C1	C207 A1	C274 B3	FB303 D3	R2034 D4	R265 A4
C0204 D4	C2070 B4	C275 B3	FB304 D3	R2035 D4	R267 A4
C0205 D4	C2071 B4	C276 B3	FB305 D3	R2036 D4	R268 A4
C0207 C1	C2072 B4	C277 B3	FB306 D3	R2037 D4	R269 A4
C0270 C1	C2073 B4	C278 C2	IC103 B3	R2039 D4	R270 A4
C0271 C1	C2074 B4	C279 C2	IC201 B2	R204 B1	R271 A4
C110 B3	C2076 B4	C280 C2	IC202 A1	R2050 B4	R272 A2
C111 B3	C2077 B4	C281 C2	IC203 C1	R2051 C4	R273 A4
C112 B4	C2078 B4	C282 C2	IC204 A2	R2052 C1	R274 A4
C113 B3	C2079 B4	C283 C2	IC205 A1	R2054 B1	R275 A4
C114 B3	C208 A1	C284 C2	IC207 B1	R2055 B3	R276 A4
C116 B3	C2080 B4	C285 C2	IC209 C3	R2057 B3	R277 A4
C117 B3	C2081 B4	C286 C2	IC210 C4	R2058 B3	R278 A4
C118 B3	C2082 B4	C287 C2	IC211 D3	R2059 D4	R280 A3
C119 B3	C2084 B4	C288 C2	IC212 D4	R2060 D4	R281 A4
C120 B3	C2085 B4	C289 A2	IC213 D4	R2061 B3	R289 A1
C121 B3	C2089 C3	C290 A2	IC217 B4	R2062 B3	R290 A1
C143 A2	C209 A1	C291 A2	IC218 D1	R2063 A2	R291 A1
C144 A2	C2090 C3	C292 A2	IC303 A3	R2064 A2	R293 B4
C145 B4	C2091 C3	C293 A3	IC304 A2	R2069 A2	R294 B4
C146 A3	C2092 C3	C296 A3	IC305 D2	R207 B1	R295 A4
C147 A3	C2094 D2	C297 A4	IC306 D3	R2070 A2	R296 A4
C148 B3	C2095 D2	C298 A4	IC307 D3	R208 B1	R297 A4
C2001 A4	C2096 D2	C299 A4	IC503 D2	R2080 B3	R298 B3
C2002 A4	C2097 D2	C351 D3	JK302 A4	R2081 C3	R299 C3
C2003 A4	C2098 D2	C352 D3	JK303 D3	R2082 C3	R351 D2
C2004 A4	C2099 D2	C353 D2	L201 A3	R2083 C3	R352 D2
C2005 D3	C210 A2	C354 D2	L203 C1	R210 B1	R353 D2
C2006 D3	C2101 D2	C355 D2	L205 C3	R2100 D1	R354 D2
C2007 D3	C2102 C1	C356 D2	L212 C1	R2101 D1	R355 D2
C2008 D3	C2103 C1	C357 D2	L213 C1	R2105 D1	R356 D2
C2009 D4	C2104 C1	C358 D2	L214 C1	R2106 D1	R359 C2
C201 A1	C2115 B3	C359 D2	L215 A1	R2107 D1	R360 C2
C2010 D3	C2117 B3	C360 D2	Q102 A3	R2108 D1	R361 C2
C2011 D3	C212 B1	C361 C2	Q103 A3	R2109 D1	R362 C2
C2012 D3	C2120 D1	C362 C2	Q201 C3	R2113 D1	R363 D2
C2013 D4	C2121 D1	C363 D3	Q202 B3	R2114 D1	R364 D2
C2014 D3	C2122 D1	C364 D3	R114 B3	R2115 D1	R365 D3
C2015 D4	C2123 D1	C365 D3	R115 B3	R2116 D1	R366 D3
C2016 D4	C2124 D1	C366 D3	R135 B3	R2117 D2	R367 D3
C2017 D3	C2125 D1	C367 D3	R136 B3	R2118 D2	R368 D3
C2018 D3	C2126 D1	C368 D3	R137 B3	R2119 D2	R369 D3
C2019 D4	C213 B1	C369 D3	R138 A3	R212 C1	R370 D3
C202 A1	C214 A4	C370 D3	R139 A3	R2120 D2	R371 D3
C2020 D4	C217 B1	C371 D3	R140 A3	R2121 D2	R372 D2
C2021 D4	C218 C1	C372 D3	R141 A3	R216 C2	R373 C3
C2022 D4	C219 C1	C375 D3	R142 A3	R217 C2	R374 C3
C2023 D4	C220 C2	C376 D3	R143 A3	R218 C2	R375 C3
C2024 D4	C223 C1	C377 D3	R144 A3	R219 C2	R377 D3
C2025 D4	C230 C1	C378 D3	R145 B3	R220 C2	R378 D3
C2026 D4	C231 C1	C379 D3	R2001 D3	R221 C2	R379 D3
C2027 D4	C232 C1	C380 D3	R2002 D3	R222 C2	R380 D3
C2028 D4	C233 C1	C381 D3	R2003 D3	R223 D2	R382 D3
C203 A1	C234 C1	C382 D3	R2004 D3	R225 C2	R383 D3
C2030 D4	C235 C1	C383 D3	R2005 D3	R226 C2	R384 D3
C2031 D4	C236 C1	C384 D3	R2006 D3	R227 C2	R387 C3
C2032 D4	C237 C2	C385 D3	R2007 D3	R228 C2	R388 C3
C2033 D4	C238 C2	C386 D3	R2008 D3	R229 C2	R389 C3
C2034 D4	C239 C2	C387 D3	R2009 D4	R230 C2	R390 C3
C2035 D4	C242 C2	C388 D3	R201 A1	R231 C2	R391 D3
C2036 D4	C243 C2	C389 D3	R2010 D3	R232 C2	R392 D3
C2037 D4	C244 C2	C390 D3	R2011 D4	R233 B3	R393 D3
C2038 D4	C247 C2	C391 D3	R2012 D3	R234 B3	R394 C1
C2039 D4	C248 C2	C392 D3	R2013 D3	R235 B3	R395 C1
C204 A1	C249 C3	C393 D3	R2014 D3	R236 B3	RA201 A2
C2040 D4	C250 C3	C394 D3	R2015 D4	R237 B3	RA202 B3
C2041 D4	C251 C3	C395 D3	R2016 D4	R238 B3	RA203 A2
C2042 D4	C252 B3	C396 D3	R2017 D4	R240 B3	RA204 A1
C2043 C2	C253 B3	C397 D3	R2018 D4	R241 B3	RA205 A2
C2044 C2	C254 B3	C398 D3	R2019 D4	R242 B3	RA206 A2
C2045 D4	C255 B3	C399 D3	R202 A1	R243 A2	XL101 B3
C2046 D4	C256 B3	C400 D3	R2020 D4	R244 B1	XL201 B3
C205 A1	C257 B3	C401 D3	R2021 D4	R245 B1	ZD104 B3
C2057 C4	C258 B3	C402 D3	R2022 D4	R246 B1	ZD201 C4
C2058 C4	C259 B3	C403 D3	R2023 D4	R247 B1	ZD202 C4
C2059 C4	C260 B3	C404 D3	R2024 D4	R252 A2	ZD203 B4
C206 A1	C262 A2	C405 D3	R2025 D4	R253 A2	ZD204 B4
C2060 C4	C263 A2	C406 D3	R2026 D4	R254 A2	ZD205 A4
C2061 C3	C264 A2	C407 D3	R2027 D4	R255 C1	ZD320 C1
C2062 C3	C265 C3	C408 D3	R2028 D4	R256 C1	
C2063 C3	C266 C3	C409 D3	R2029 D4	R257 A2	
C2064 B4	C267 C3	C410 D3	R2030 D4	R258 A2	
C2065 B4	C268 C3	C411 D3	R2031 D4	R259 A3	
C2066 B4	C269 C3	C412 D3	R2032 D4	R260 A3	
C2067 B4	C270 C3	C413 D3	R2033 D4	R261 A3	

PCB Layout Top View

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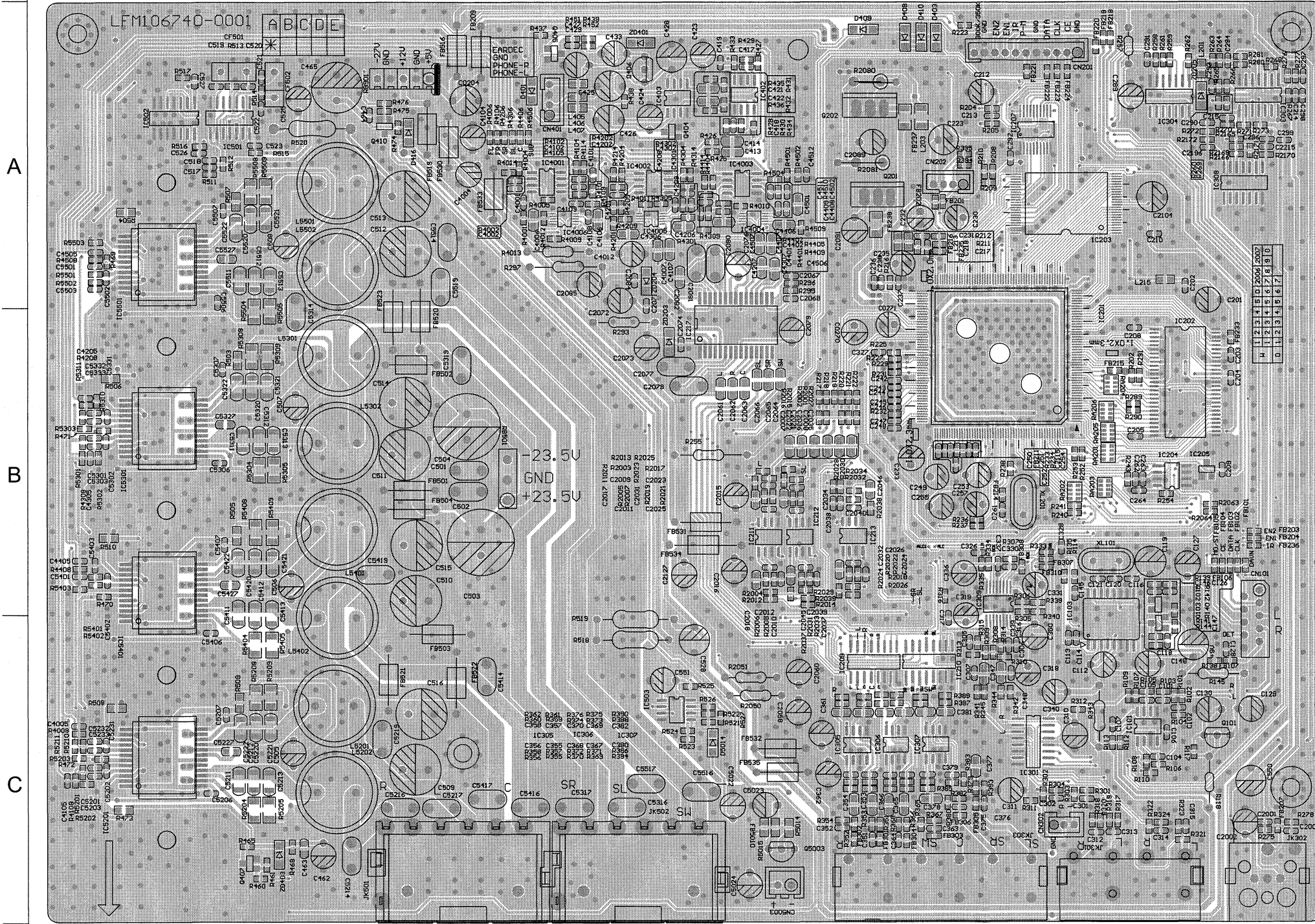
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C4505 A1	C513 A2	C418 A3	C296 A4	R5308 B1	C336 B3	FB236 B4	R5203 C1	C528 C3	IC301 C4
C464 A1	C5514 A2	C419 A3	C297 A4	R5309 B1	C337 B3	FB307 B4	R5204 C1	C5516 C3	JK301 C4
C465 A1	C5519 A2	C420 A3	C298 A4	R5310 B1	IC211 B3	FB308 B4	R5205 C1	CN5003C3	JK302 C4
C508 A1	CN401 A2	C421 A3	C299 A4	R5311 B1	IC212 B3	FB310 B4	R5208 C1	D5014 C3	JK303 C4
C517 A1	D416 A2	C422 A3	CN201 A4	R5403 B1	IC213 B3	IC103 B4	R5209 C1	FB301 C3	Q101 C4
C519 A1	FB209 A2	C423 A3	FB218 A4	R5504 B1	IC217 B3	IC201 B4	R5210 C1	FB302 C3	R101 C4
C520 A1	FB516 A2	C4307 A3	FB219 A4	R5505 B1	IC309 B3	IC202 B4	R5211 C1	FB303 C3	R102 C4
C521 A1	FB519 A2	C4401 A3	FB220 A4	C2009 B2	R2001 B3	IC204 B4	R5401 C1	FB304 C3	R103 C4
C522 A1	FB523 A2	C4402 A3	FB221 A4	C2011 B2	R2002 B3	IC205 B4	R5402 C1	FB305 C3	R104 C4
C523 A1	FB530 A2	C4403 A3	FB222 A4	C2017 B2	R2004 B3	Q102 B4	R5404 C1	FB306 C3	R105 C4
C525 A1	FB533 A2	C4407 A3	FB223 A4	C2023 B2	R2006 B3	Q103 B4	R5405 C1	FB5010C3	R106 C4
C526 A1	IC4001 A2	C4408 A3	FB224 A4	C2025 B2	R2008 B3	R114 B4	R5408 C1	FB532 C3	R107 C4
C527 A1	IC4002 A2	C4409 A3	IC203 B2	C2031 B2	R2012 B3	R135 B4	R5409 C1	FB535 C3	R108 C4
C5501 A1	IC4005 A2	C4501 A3	IC207 A4	C2073 B2	R2014 B3	R139 B4	ZD403 C1	IC209 C3	R109 C4
C5502 A1	IC4006 A2	C4502 A3	IC303 A4	C2074 B2	R2015 B3	R140 B4	C355 C2	IC210 C3	R110 C4
C5503 A1	IC403 A2	C4506 A3	IC304 A4	C2077 B2	R2016 B3	R141 B4	C356 C2	Q5003 C3	R112 C4
C5506 A1	L405 A2	C4507 A3	L201 A4	C2078 B2	R2018 B3	R142 B4	C357 C2	R2050 C3	R113 C4
C5507 A1	L406 A2	C4511 A3	L215 A4	C501 B2	R2020 B3	R144 B4	C358 C2	R2051 C3	R114 C4
C5511 A1	L407 A2	C4512 A3	R257 A4	C502 B2	R2022 B3	R202 B4	C367 C2	R308 C3	R118 C4
C5512 A1	Q404 A2	CN202 A3	R258 A4	C503 B2	R2024 B3	R2063 B4	C368 C2	R309 C3	R138 C4
C5513 A1	Q406 A2	D403 A3	R259 A4	C504 B2	R2026 B3	R2064 B4	C369 C2	R313 C3	R275 C4
C5520 A1	Q410 A2	D408 A3	R261 A4	C510 B2	R2027 B3	R233 B4	C370 C2	R314 C3	R278 C4
C5521 A1	R297 A2	D409 A3	R262 A4	C511 B2	R2028 B3	R234 B4	C380 C2	R315 C3	R301 C4
C5522 A1	R4001 A2	D410 A3	R264 A4	C514 B2	R2029 B3	R240 B4	C382 C2	R341 C3	R302 C4
C5527 A1	R4002 A2	FB201 A3	R265 A4	C515 B2	R2030 B3	R241 B4	C509 C2	R344 C3	R303 C4
CF501 A1	R4004 A2	FB202 A3	R267 A4	C5319 B2	R2031 B3	R243 B4	C516 C2	R345 C3	R304 C4
IC501 A1	R4006 A2	FB235 A3	R269 A4	FB501 B2	R2033 B3	R253 B4	C5217 C2	R352 C3	R311 C4
IC502 A1	R4009 A2	FB237 A3	R270 A4	FB502 B2	R2034 B3	R254 B4	C5219 C2	R353 C3	R312 C4
IC5501 A1	R4011 A2	FB238 A3	R271 A4	FB504 B2	R2037 B3	R289 B4	C5316 C2	R354 C3	R317 C4
L5501 A1	R4012 A2	IC4003 A3	R272 A4	FB520 B2	R2039 B3	R290 B4	C5317 C2	R365 C3	R318 C4
L5502 A1	R4013 A2	IC4004 A3	R273 A4	FB531 B2	R217 B3	R291 B4	C5414 C2	R366 C3	R319 C4
R4508 A1	R4014 A2	IC402 A3	R276 A4	FB534 B2	R218 B3	R305 B4	C5416 C2	R367 C3	R320 C4
R469 A1	R4101 A2	L203 A3	R277 A4	L5302 B2	R219 B3	R306 B4	C5417 C2	R368 C3	R321 C4
R504 A1	R4102 A2	L213 A3	R280 A4	R2003 B2	R220 B3	R307 B4	C551 C2	R379 C3	R322 C4
R507 A1	R4104 A2	Q201 A3	R281 A4	R2005 B2	R221 B3	R333 B4	C5517 C2	R380 C3	R323 C4
R511 A1	R4105 A2	Q202 A3	ZD205 A4	R2007 B2	R222 B3	RA201 B4	FB503 C2	R382 C3	R324 C4
R512 A1	R4106 A2	R204 A3	C4205 B1	R2011 B2	R225 B3	RA202 B4	FB521 C2	R383 C3	R342 C4
R513 A1	R4109 A2	R208 A3	C4305 B1	R2013 B2	R227 B3	RA203 B4	FB522 C2	R387 C3	R343 C4
R514 A1	R4114 A2	R2080 A3	C4405 B1	R2017 B2	R229 B3	RA204 B4	IC305 C2	R390 C3	
R515 A1	R4201 A2	R2081 A3	C506 B1	R2019 B2	R231 B3	RA205 B4	IC306 C2	R393 C3	
R516 A1	R4202 A2	R2082 A3	C507 B1	R2021 B2	R232 B3	RA206 B4	IC307 C2	R5014 C3	
R517 A1	R4204 A2	R210 A3	C5301 B1	R2023 B2	R236 B3	XL101 B4	IC503 C2	R5015 C3	
R520 A1	R4205 A2	R212 A3	C5302 B1	R2025 B2	R237 B3	XL201 B4	JK502 C2	R521 C3	
R5501 A1	R4206 A2	R216 A3	C5303 B1	R293 B2	R255 B3	C4005 C1	R355 C2	R522 C3	
R5502 A1	R4209 A2	R223 A3	C5306 B1	RB501 B2	R316 B3	C4105 C1	R356 C2	R525 C3	
R5503 A1	R4214 A2	R295 A3	C5307 B1	ZD203 B2	R334 B3	C505 C1	R359 C2	R526 C3	
R5508 A1	R4301 A2	R296 A3	C5311 B1	C2007 B3	R335 B3	C5201 C1	R360 C2	R527 C3	
R5509 A1	R4302 A2	R394 A3	C5312 B1	C2008 B3	C116 B4	C5202 C1	R361 C2	C101 C4	
RB901 A1	R4304 A2	R395 A3	C5313 B1	C2010 B3	C117 B4	C5203 C1	R362 C2	C102 C4	
C0204 A2	R4305 A2	R4010 A3	C5314 B1	C2012 B3	C119 B4	C5204 C1	R369 C2	C104 C4	
C2072 A2	R4306 A2	R425 A3	C5320 B1	C2015 B3	C120 B4	C5206 C1	R370 C2	C105 C4	
C2082 A2	R437 A2	R426 A3	C5321 B1	C2016 B3	C121 B4	C5207 C1	R371 C2	C106 C4	
C2084 A2	R438 A2	R427 A3	C5322 B1	C2018 B3	C126 B4	C5211 C1	R372 C2	C107 C4	
C2085 A2	R4406 A2	R428 A3	C5327 B1	C2021 B3	C127 B4	C5212 C1	R373 C2	C112 C4	
C4001 A2	R4506 A2	R429 A3	C5331 B1	C2022 B3	C145 B4	C5213 C1	R374 C2	C113 C4	
C4002 A2	R452 A2	R430 A3	C5332 B1	C2024 B3	C146 B4	C5214 C1	R375 C2	C114 C4	
C4004 A2	R474 A2	R4309 A3	C5333 B1	C2026 B3	C147 B4	C5220 C1	R384 C2	C118 C4	
C4006 A2	R475 A2	R431 A3	C5401 B1	C2032 B3	C203 B4	C5221 C1	R388 C2	C128 C4	
C4007 A2	R476 A2	R4314 A3	C5403 B1	C2034 B3	C204 B4	C5222 C1	R389 C2	C129 C4	
C4012 A2	ZD204 A2	R432 A3	C5407 B1	C2035 B3	C205 B4	C5227 C1	R518 C2	C130 C4	
C4101 A2	ZD401 A2	R433 A3	C5411 B1	C2036 B3	C208 B4	C5231 C1	R519 C2	C148 C4	
C4102 A2	C2067 A3	R434 A3	C5412 B1	C2037 B3	C209 B4	C5232 C1	R523 C2	C2001 C4	
C4104 A2	C2068 A3	R435 A3	C5413 B1	C2038 B3	C2115 B4	C5233 C1	R524 C2	C2002 C4	
C4106 A2	C2071 A3	R436 A3	C5420 B1	C2039 B3	C250 B4	C5402 C1	C2058 C3	C2004 C4	
C4107 A2	C2076 A3	R4401 A3	C5421 B1	C2040 B3	C251 B4	C5406 C1	C2060 C3	C301 C4	
C4108 A2	C2080 A3	R4402 A3	C5422 B1	C2045 B3	C252 B4	IC5201 C1	C307 C3	C302 C4	
C4109 A2	C2081 A3	R4404 A3	C5427 B1	C2046 B3	C254 B4	IC5401 C1	C347 C3	C306 C4	
C4201 A2	C2089 A3	R4405 A3	IC5301 B1	C2061 B3	C262 B4	JK501 C1	C351 C3	C310 C4	
C4202 A2	C2091 A3	R4409 A3	L5301 B1	C2062 B3	C263 B4	L5201 C1	C352 C3	C311 C4	
C4206 A2	C212 A3	R4414 A3	L5401 B1	C2063 B3	C264 B4	L5202 C1	C353 C3	C312 C4	
C4208 A2	C213 A3	R4501 A3	R4208 B1	C2064 B3	C330 B4	L5402 C1	C354 C3	C313 C4	
C4209 A2	C217 A3	R4502 A3	R4308 B1	C2065 B3	C331 B4	Q407 C1	C361 C3	C314 C4	
C4210 A2	C218 A3	R4504 A3	R4408 B1	C2066 B3	CN101 B4	R4008 C1	C362 C3	C315 C4	
C424 A2	C223 A3	R4510 A3	R470 B1	C2079 B3	FB101 B4	R4108 C1	C363 C3	C316 C4	
C425 A2	C230 A3	C201 A4	R471 B1	C233 B3	FB102 B4	R460 C1	C364 C3	C318 C4	
C426 A2	C231 A3	C202 A4	R503 B1	C242 B3	FB103 B4	R461 C1	C365 C3	C340 C4	
C427 A2	C232 A3	C210 A4	R505 B1	C243 B3	FB104 B4	R465 C1	C366 C3	C348 C4	
C428 A2	C235 A3	C2104 A4	R506 B1	C244 B3	FB105 B4	R468 C1	C376 C3	C350 C4	
C429 A2	C236 A3	C214 A4	R510 B1	C247 B3	FB106 B4	R472 C1	C377 C3	C375 C4	
C4301 A2	C237 A3	C289 A4	R5301 B1	C248 B3	FB203 B4	R473 C1	C378 C3	C550 C4	
C4302 A2	C238 A3	C290 A4	R5302 B1	C249 B3	FB204 B4	R508 C1	C379 C3	CN302 C4	
C4306 A2	C413 A3	C291 A4	R5303 B1	C253 B3	FB211 B4	R509 C1	C381 C3	FB107 C4	
C433 A2	C414 A3	C292 A4	R5304 B1	C255 B3	FB215 B4	R5201 C1	C5022 C3	FB207 C4	
C512 A2	C417 A3	C293 A4	R5305 B1	C257 B3	FB233 B4	R5202 C1	C5023 C3	IC101 C4	

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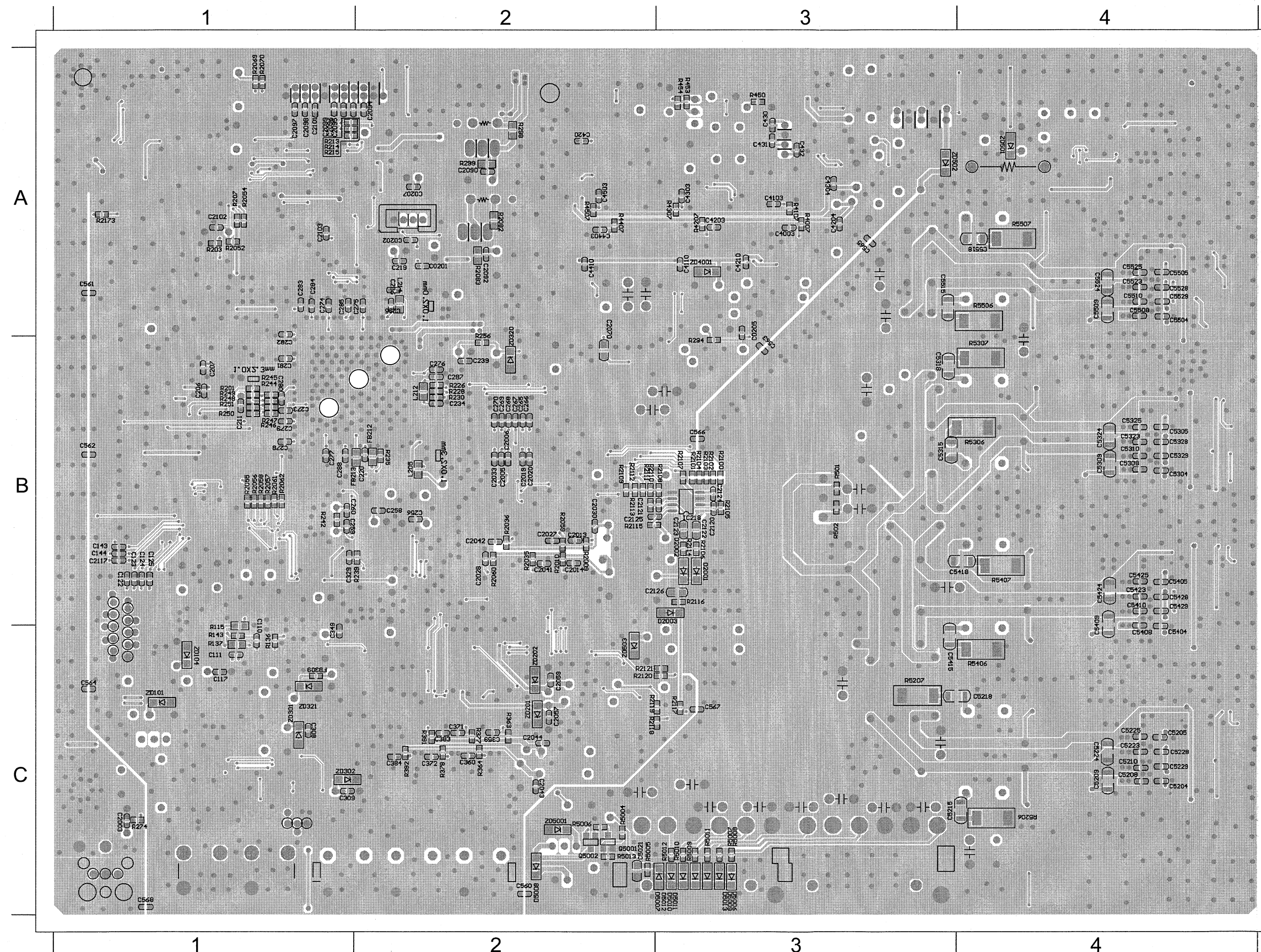
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	C0202	A2	C360	C2	FB309	C1	R5307	B4
	C0205	A3	C371	C2	IC218	B3	R5406	C4
	C0207	A2	C372	C2	L205	B2	R5407	B4
	C0270	B2	C383	C2	L212	B2	R5506	A4
	C0271	A2	C384	C2	L214	A2	R5507	A4
	C110	C1	C4003	A3	Q5001	C2	ZD101	C1
	C111	C11	C4103	A3	Q5002	C2	ZD104	C1
	C122	B1	C4110	A3	R115	C1	ZD201	C2
	C123	B1	C420	A2	R136	C1	ZD202	C2
	C124	B1	C4203	A3	R137	C1	ZD301	C1
	C125	B1	C4204	A3	R143	C1	ZD302	C1
	C143	B1	C430	A3	R2009	B2	ZD320	B2
	C144	B1	C4303	A3	R201	B1	ZD321	C1
	C2003	C1	C4304	A3	R2010	B2	ZD4001	A3
	C2005	B2	C431	A3	R203	A1	ZD5001	C2
	C2006	B2	C432	A3	R2035	B2	ZD501	A4
	C2013	B2	C4406	A2	R2036	B2	ZD502	A3
	C2014	B2	C4410	A2	R2052	A1	ZD503	C2
	B	C2019	B2	C4503	A2	R2054	A1	
C2020		B2	C5021	C2	R2055	B1		
C2027		B2	C516	A1	R2057	B1		
C2028		B2	C5205	C3	R2058	B1		
C2030		B2	C5208	C3	R2059	B2		
C2033		B2	C5209	C3	R2060	B2		
C2041		B2	C5210	C3	R2061	B1		
C2042		B2	C5215	C3	R2062	B1		
C2043		C2	C5218	C3	R2069	A1		
C2044		C2	C5223	C3	R207	A1		
C2057		C2	C5224	C3	R2070	A1		
C2059		C2	C5225	C3	R2083	A2		
C206		B1	C5228	C4	R2100	B3		
C207		B1	C5229	C4	R2101	B3		
C2070		B2	C5304	B4	R2105	B3		
C2090		A2	C5305	B4	R2106	B3		
C2092		A2	C5308	B4	R2107	B3		
C2094		A2	C5309	B4	R2108	B3		
C2095		A1	C5310	B4	R2109	B2		
C2096		A1	C5315	B3	R2113	B2		
C2097	A1	C5318	B3	R2114	B3			
C2098	A1	C5323	B4	R2115	B2			
C2099	A1	C5324	B4	R2116	B3			
C	C2101	A1	C5325	B4	R2117	C3		
	C2102	A1	C5328	B4	R2118	C2		
	C2103	A1	C5329	B4	R2119	C2		
	C2117	B1	C5404	C4	R2120	C2		
	C2120	B3	C5405	B4	R2121	C2		
	C2121	B3	C5408	C4	R226	B2		
	C2122	B3	C5409	B4	R228	B2		
	C2123	B3	C5410	B4	R230	B2		
	C2124	B3	C5415	C3	R235	B2		
	C2125	B2	C5418	B3	R239	B2		
	C2126	B3	C5423	B4	R242	B1		
	C219	A2	C5424	B4	R244	B1		
	C220	B2	C5425	B4	R245	B1		
	C234	B2	C5428	B4	R246	B1		
	C239	B2	C5429	B4	R247	B1		
	C256	B2	C5504	A4	R256	B2		
	C258	B2	C5505	A4	R274	C1		
	C259	B1	C5508	A4	R294	B3		
	C260	B1	C5509	A4	R298	A2		
	C265	B2	C5510	A4	R299	A2		
C266	B2	C5515	A3	R363	C2			
C267	B2	C5518	A4	R364	C2			
C268	B2	C5523	A4	R377	C2			
C269	B2	C5524	A4	R378	C2			
C270	B2	C5525	A4	R391	C2			
C273	B1	C5528	A4	R392	C2			
C274	A1	C5529	A4	R4007	A3			
C275	A1	C560	C2	R4107	A3			
C276	B2	C561	A1	R4207	A3			
C277	B1	C562	B1	R4307	A3			
C278	B1	C563	B3	R4407	A2			
C279	B1	C564	C1	R450	A3			
C280	B1	C565	A3	R4507	A2			
C281	B1	C566	B3	R453	A3			
C282	A1	C567	C3	R454	A3			
C283	A1	C568	C1	R5004	C2			
C284	A1	D2001	B3	R5005	C2			
C285	A1	D2002	B3	R5006	C2			
C286	A2	D2003	B3	R5007	C3			
C287	B2	D5006	C3	R5008	C3			
C288	B1	D5007	C3	R501	B3			
C308	C1	D5008	C2	R502	B3			
C309	C1	D5013	C3	R5206	C3			
C349	C1	FB212	B2	R5207	C3			

Voltage

IC101(455)																			
Pin NO	1	2	3	4	5	6	7	8											
Voltage	0.02	0.03	0.01	-10.5	0.04	0.05	0.07	12.5											

IC103(65 1)																			
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16			
Voltage	2.03	2.61	2.02	2.01	4.6	0	2.06	2.05	4.5	0	0	4.5	1.6	2.2	4.5	2.2			

IC201(3 0 C)																			
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Voltage	3.2	1.6	1.1	0	1.7	0.3	0.4	0	0	3.2	0.1	0.1	0	0.1	0	0	2.7	0	3
Pin NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Voltage	3.2	3	0	3.2	3.3	0	1	1.1	0	0.9	1	1.3	1	0.9	0	3.2	1	1	1
Pin NO	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
Voltage	0.8	1	1.1	1.3	0	3.2	0	2.1	1.3	1.8	2.5	0	3.2	1	1.6	1.8	0	0	3.2
Pin NO	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
Voltage	3.2	0	0	1.1	0	1.4	1.9	1.5	1.7	1.7	1.5	0	3.2	1.6	0	1.6	3.2	3.2	1.6
Pin NO	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99
Voltage	0	0	1.2	0	1.8	0	0	1.1	0	3.2	0	1	0	1.7	1.6	0	0	0	1.6
Pin NO	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119
Voltage	0.8	0.8	0	3.2	0	0	3.2	1.3	0	0	3.2	0	0.8	0.8	0.8	0.8	1.6	1.7	1.7
Pin NO	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139
Voltage	0	0	1.6	1.7	3.2	3.8	1.4	0	1.5	3.2	0	0	0	3.2	1.4	0	0	0	3.2
Pin NO	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159
Voltage	0	1.4	0	1.6	0	1.5	2.7	1.1	3.2	2.1	1.9	0.2	1.2	1.2	1	3.1	0	1.5	1.5
Pin NO	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179
Voltage	2	2	2	2	2	2	1.9	1.9	1.5	3.2	1.1	1.6	1.5	1.6	0	2.3	3.2	0	1.4
Pin NO	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199
Voltage	0	3.6	3.6	1.8	1.7	1.6	0	3.2	0	3.2	0	3.2	0	0	0	1.4	4	3.7	3.9
Pin NO	201	202	203	204	205	206	207	208											
Voltage	3.9	3.2	3.2	3.9	1.6	1.7	1.4	0											

IC202(4 4 1644V -6)																			
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Voltage	3.4	0.8	3.4	1.03	1.22	0	0.9	0.9	3.4	0.9	1	0	1.08	3.4	0	3.4	3.47	3.46	3.4
Pin NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Voltage	0	0	0	0	0	3.4	3.4	0	3.4	3.4	3.4	3.4	0	0	0	0	3.4	1.85	0
Pin NO	41	42	43	44	45	46	47	48	49	50	51	52	53	54					
Voltage	0	0.09	3.4	0.12	0	0	0.1	0.1	3.4	0.09	0	0	0.09	0					

IC203(2 V 00C C-0 0)																			
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Voltage	0.5	0.05	0.1	0.02	0.04	0.01	0.08	0.01	0	0	0.1	0.08	3.3	3.3	0.5	0.06	0.01	0.01	0.02
Pin NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Voltage	0.08	0.09	0.08	0	0	0	0	0	0.1	0.5	0.4	0.08	0.01	0.07	0.09	0.02	3.3	0.08	0.09
Pin NO	41	42	43	44	45	46	47	48	49	50	51	52	53	54					
Voltage	0.04	0.07	0.08	0.09	0.07	0.01	0.08	0.09											

IC204(24C04C 2)																			
Pin NO	1	2	3	4	5	6	7	8											
Voltage	0	0	0	0	3.3	3.3	0	3.3											

IC205(110 C 300)																			
Pin NO	1	2	3																
Voltage	3.3	0	3.3																

IC20 (4 C3 4)																			
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Voltage	0	0	0.5	1.16	0	0	1.09	1.2	0	0	3.4	5	1.07	0	5.12	5.1	1.3	1.2	5

IC20 (C 4053 - 6)																			
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16			
Voltage	0	0	0	0	0	0	-5.2	0	0	0	0	0	0	0	0	5.07			

IC211(C 455)																			
Pin NO	1	2	3	4	5	6	7	8											
Voltage	0.04	0.02	0.03	-10.5	0.01	0.08	0.09	12.3											

IC212(455)																			
Pin NO	1	2	3	4	5	6	7	8											
Voltage	0	0.04	0	-10.5	0	0.09	0.08	12.3											

IC213 (C 455)																			
Pin NO	1	2	3	4	5	6	7	8											
Voltage	0.07	0.01	0.03	-10.5	0.04	0.05	0	12.5											

IC21 (1150)																			
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Voltage	0	7.8	5	0	0	0	0	0	0.1	0	0	0	0.5	0.07	0.04	3.3	3.3	0.1	0.2
Pin NO	21	22	23	24	25	26	27	28	29	30									
Voltage	0	0	0.1	0.8	0	0.2	0	0	0.9	-7.8									

IC21 (455)																			
Pin NO	1	2	3	4	5	6	7	8											
Voltage	0.01	0.02	0.03	-10.5	0.04	0.05	0.08	12.4											

IC301(4052 - 16)																			
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16			
Voltage	0	0	0	0	0	0	-5	0	0	0	0	0	0	0	0	5.04			

IC303(4 C 04)																			
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14					
Voltage	0	0	2.1	2.2	2.08	0	0	0	0	2.09	2.2	0.1	0	0					

IC5201(20)																				
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	-23.8	0	23.6	0	0	5	2.4	0	0	23.7	0	-23.5	-16	24	11.3	0	-24	-11.9	-23.7	-23.8
Pin NO	21	22	23	24																
Voltage	0	11.2	24	-23.8																

POWER BOARD

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VOLTAGE

IC 01(3 43 - 1)																			
Pin NO	1	2	3	4	5	6				10	11	12	13	14	15	16			
Voltage	4.	4.	2.6	0	1.	3.4	0	12.1	2.1	2	12.1	12.1	4.	4.	2.4	0			

IC 02(3 43 - 1)																			
Pin NO	1	2	3	4	5	6													
Voltage	3.1	0	0.5	2.1	0	1.4	10.	5.15											

IC 03																			
Pin NO	1	2	3	4															
Voltage	4.	4.	0	0															

IC 04																			
Pin NO	1	2	3	4															
Voltage	4.	4.	0	0															

IC 05(431 -)																			
Pin NO	1	2	3																
Voltage	4	0	4.03																

IC 06(431 - 2)																			
Pin NO	1	2	3																
Voltage																			

Q901			
Pin NO	b	c	e
Voltage	145	295	145

Q902			
Pin NO	b	c	e
Voltage	2.6	0	0.8

Q903			
Pin NO	b	c	e
Voltage	1.85	0	1.79

Q904			
Pin NO	b	c	e
Voltage	0	3.4	0

Q905			
Pin NO	b	c	e
Voltage	0.5	0	0

Q906			
Pin NO	b	c	e
Voltage	42.1	0	0

Q907			
Pin NO	b	c	e
Voltage	0	0	0

Q908			
Pin NO	b	c	e
Voltage	0	4	0

Q909			
Pin NO	b	c	e
Voltage	145	0	0

Q910			
Pin NO	b	c	e
Voltage	1.7	0	1.7

Q911			
Pin NO	b	c	e
Voltage	1.7	0	1.7

Q912			
Pin NO	b	c	e
Voltage	298	0	0

Q913			
Pin NO	b	c	e
Voltage	2.4	0	70.6

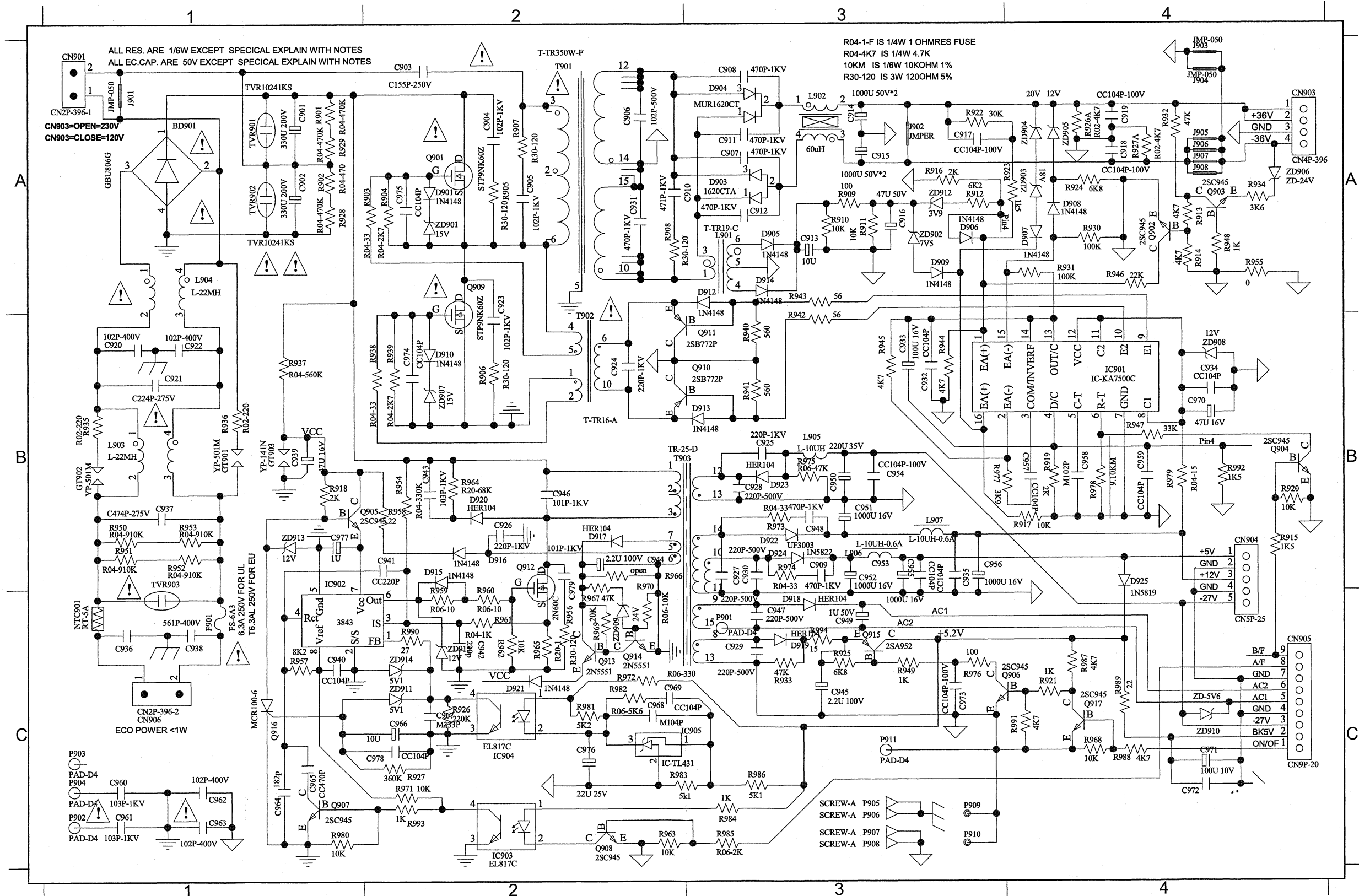
Q914			
Pin NO	b	c	e
Voltage	0	0	0

Q915			
Pin NO	b	c	e
Voltage	42.1	4.9	42.1

Q916			
Pin NO	b	c	e
Voltage	0	0	0

CIRCUIT DIAGRAM

BD901	A1	C912	A3	C923	A2	C934	B4	C946	B2	C958	B4	C969	C2	CN906	C1	D914	A3	D925	B4	L903	B1	Q906	C4	Q917	C4	R911	A3	R922	A3	R932	A4	R943	A3	R954	B2	R966	B2	R977	B4	R988	C4	TVR903B1	ZD911	C2	
C901	A1	C913	A3	C924	B2	C935	B3	C948	B3	C959	B4	C970	B4	D901	A2	D915	B2	F901	C1	L904	A1	Q907	C1	R901	A1	R912	A3	R923	A4	R933	C3	R944	B3	R955	A4	R967	B2	R978	B4	R989	C4	ZD901	A2	ZD912	A3
C902	A1	C914	A3	C925	B3	C937	B1	C949	C3	C960	C1	C971	C4	D903	A3	D916	B2	GT901	B1	L905	B3	Q908	C2	R902	A1	R913	A4	R924	A4	R934	A4	R945	B3	R957	C1	R968	C4	R979	B4	R990	C2	ZD902	A3	ZD913	B1
C903	A2	C915	A3	C926	B2	C938	C1	C950	B3	C961	C1	C972	C4	D904	A3	D917	B2	GT902	B1	L906	B3	Q909	A2	R903	A2	R914	A4	R925	C3	R935	B1	R946	A4	R958	B2	R969	C2	R980	C1	R991	C4	ZD903	A4	ZD914	C2
C904	A2	C916	A3	C927	B3	C939	B1	C951	B3	C962	C1	C973	C3	D905	A3	D918	C3	IC901	B4	L907	B3	Q910	B3	R904	A2	R915	B4	R926A	A4	R936	B1	R947	B4	R959	C2	R970	B2	R981	C2	R993	C2	ZD904	A4		
C906	A2	C917	A3	C928	B3	C940	C1	C952	B3	C963	C1	C976	C2	D907	A4	D919	C3	IC902	C1	NTC901	C1	Q911	B3	R905	A2	R916	A3	R927	C2	R937	B1	R948	A4	R960	C2	R971	C2	R982	C2	R994	C3	ZD905	A4		
C907	A3	C918	A4	C929	C3	C941	B2	C953	B3	C964	C1	C977	B1	D908	A4	D920	B2	IC903	C2	Q901	A2	Q912	B2	R906	B2	R917	B4	R927A	A4	R938	B2	R949	C3	R961	C2	R972	C2	R983	C2	T901	A2	ZD906	A4		
C908	A3	C919	A4	C930	B3	C942	C2	C954	B3	C965	C1	C978	C2	D909	A3	D921	C2	IC904	C2	Q902	A4	Q913	C2	R907	A2	R918	B1	R928	A1	R939	B2	R950	B1	R962	C2	R973	B3	R984	C3	T902	A2	ZD907	B2		
C909	B3	C920	B1	C931	A2	C943	B2	C955	B3	C966	C2	CN903	A4	D910	B2	D922	B3	IC905	C2	Q903	A4	Q914	C2	R908	A2	R919	B4	R929	A1	R940	B3	R951	B1	R963	C2	R974	B3	R985	C3	T903	B2	ZD908	B4		
C910	A2	C921	B1	C932	B3	C944	B2	C956	B3	C967	C2	CN904	B4	D912	A3	D923	B3	L901	A3	Q904	B4	Q915	C3	R909	A3	R920	B4	R930	A4	R941	B3	R952	B1	R964	B2	R975	B3	R986	C3	TVR901A1	ZD909	C2			
C911	A3	C922	B1	C933	B3	C945	C3	C957	B4	C968	C2	CN905	C4	D913	B3	D924	B3	L902	A3	Q905	B2	Q916	C1	R910	A3	R921	C4	R931	A4	R942	B3	R953	B1	R965	C2	R976	C3	R987	C4	TVR902A1	ZD910	C4			

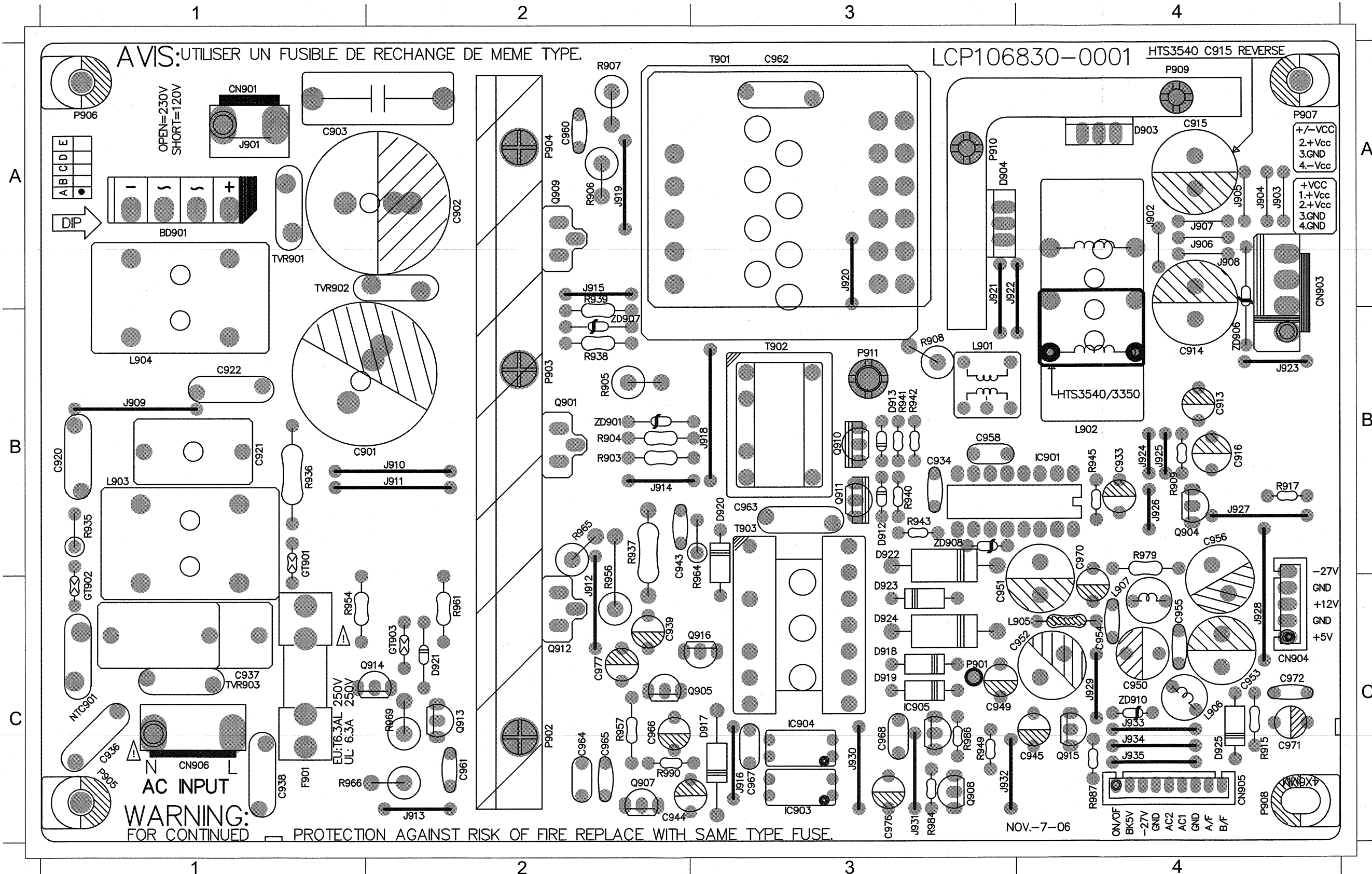


PCB LAYOUT - TOP VIEW

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BD901 A1	TVR902 A2	J906 A4	J909 B1	R903 B2	D912 B3	R941 B3	C916 B4	L902 B4	GT902 C1	C977 C2	R966 C2	D923 C3	Q916 C3	C955 C4	J934 C4
C903 A1	C962 A3	J907 A4	L903 B1	R904 B2	D913 B3	R942 B3	C933 B4	Q904 B4	NTC901 C1	D921 C2	R969 C2	D924 C3	R949 C3	C971 C4	J935 C4
TVR901 A1	D904 A3	J908 A4	L904 B1	R905 B2	D920 B3	R943 B3	C956 B4	R909 B4	R954 C1	J912 C2	R990 C2	IC903 C3	R984 C3	C972 C4	L905 C4
C902 A2	J920 A3	J922 A4	R935 B1	R937 B2	D922 B3	R964 B3	C970 B4	R917 B4	TVR903 C1	J913 C2	C949 C3	IC904 C3	R986 C3	CN904 C4	L906 C4
C960 A2	J921 A3	ZD906 A4	R936 B1	R938 B2	J918 B3	T902 B3	IC901 B4	R945 B4	C939 C2	Q907 C2	C967 C3	IC905 C3	C945 C4	CN905 C4	L907 C4
J915 A2	T901 A3	C901 B1	C943 B2	R965 B2	L901 B3	T903 B3	J923 B4	R979 B4	C944 C2	Q912 C2	C968 C3	J916 C3	C950 C4	D925 C4	Q915 C4
Q909 A2	C915 A4	C920 B1	J910 B2	ZD901 B2	Q910 B3	ZD907 B3	J924 B4	C937 C1	C961 C2	Q913 C2	C976 C3	J930 C3	C951 C4	J928 C4	R915 C4
R906 A2	CN903 A4	C921 B1	J911 B2	C934 B3	Q911 B3	ZD908 B3	J925 B4	C938 C1	C964 C2	Q914 C2	D917 C3	J931 C3	C952 C4	J929 C4	R987 C4
R907 A2	D903 A4	C922 B1	J914 B2	C958 B3	R908 B3	C913 B4	J926 B4	CN906 C1	C965 C2	R957 C2	D918 C3	Q905 C3	C953 C4	J932 C4	ZD910 C4
R939 A2	J905 A4	GT901 B1	Q901 B2	C963 B3	R940 B3	C914 B4	J927 B4	F901 C1	C966 C2	R961 C2	D919 C3	Q908 C3	C954 C4	J933 C4	

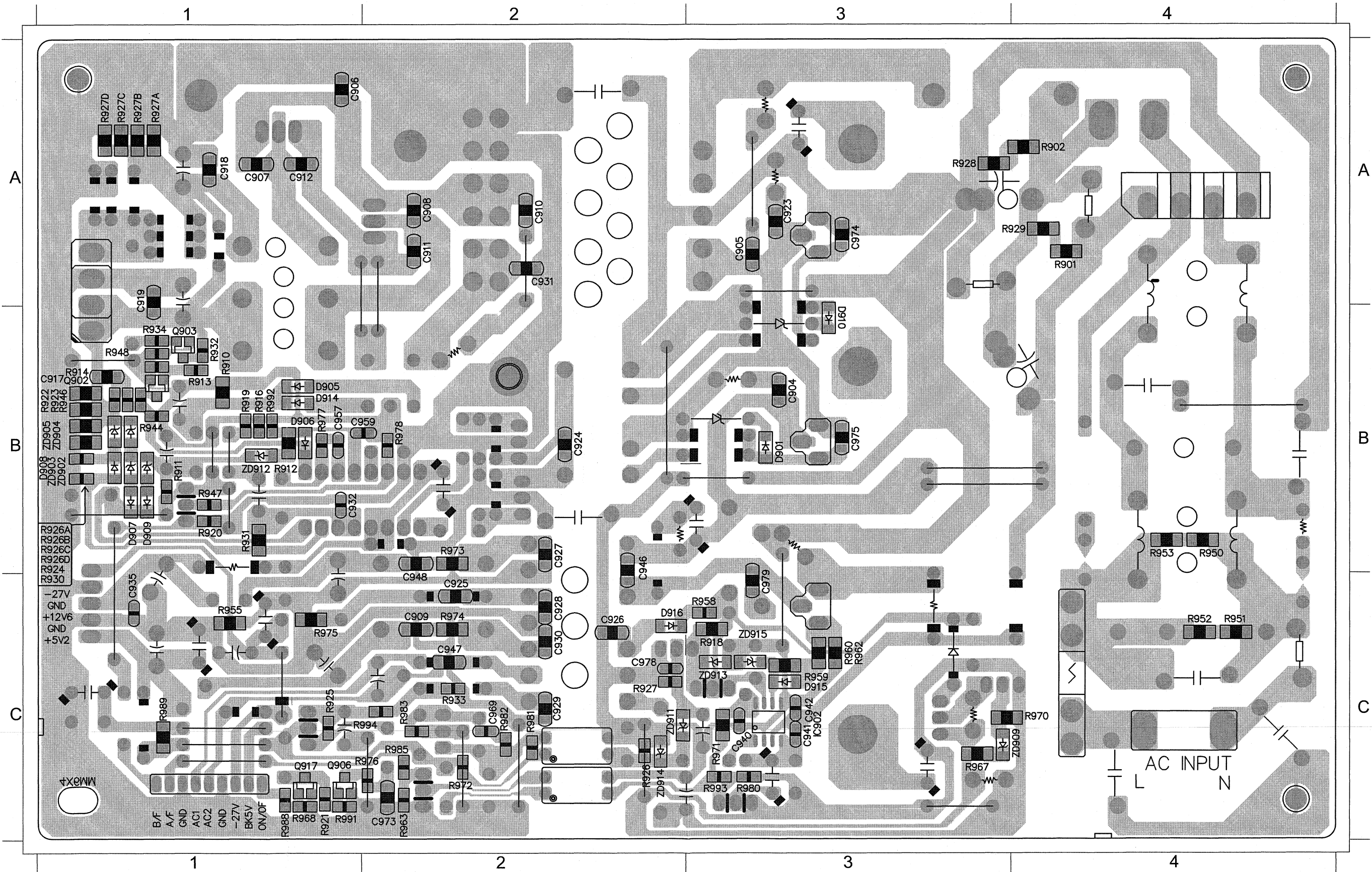


PCB LAYOUT - BOTTOM VIEW

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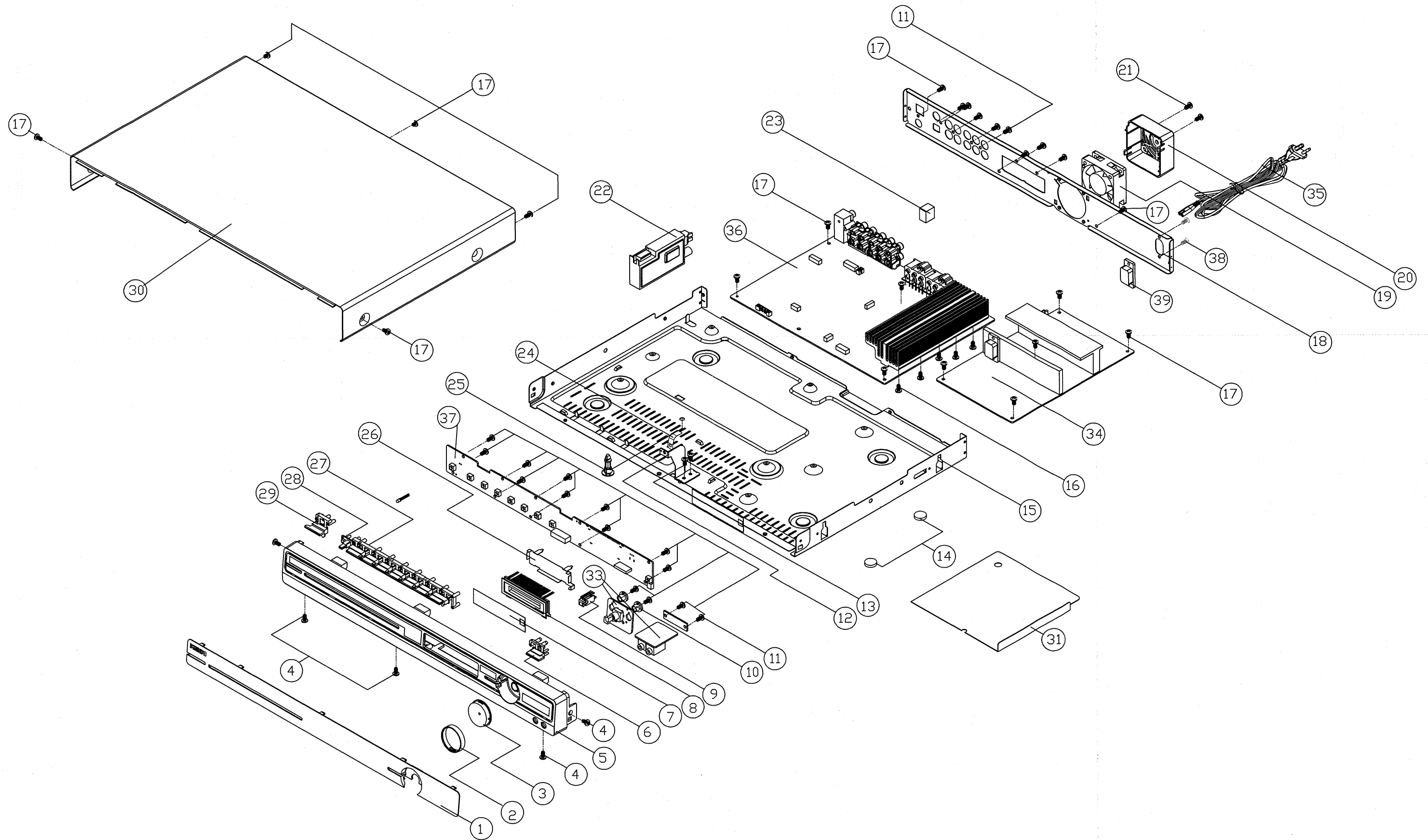
C906	A1	R927D	A1	R902	A4	D908	B1	R913	B1	R926A	B1	R944	B1	ZD912	B1	D901	B3	R925	C1	C909	C2	C978	C2	R981	C2	C942	C3	R967	C3	R952	C4
C907	A1	C908	A2	R929	A4	D909	B1	R914	B1	R926B	B1	R946	B1	C924	B2	D910	B3	R955	C1	C925	C2	D916	C2	R982	C2	D915	C3	R970	C3		
C912	A1	C910	A2	C917	B1	D914	B1	R916	B1	R926C	B1	R947	B1	C927	B2	R950	B4	R968	C1	C926	C2	R927	C2	R983	C2	IC902	C3	R971	C3		
C918	A1	C911	A2	C932	B1	Q902	B1	R919	B1	R926D	B1	R948	B1	C946	B2	R953	B4	R975	C1	C928	C2	R933	C2	R985	C2	R918	C3	R980	C3		
C919	A1	C931	A2	C957	B1	Q903	B1	R920	B1	R930	B1	ZD902	B1	C948	B2	C935	C1	R988	C1	C929	C2	R963	C2	ZD911	C2	R958	C3	R993	C3		
R927A	A1	C923	A3	C959	B1	R910	B1	R922	B1	R931	B1	ZD903	B1	R973	B2	Q906	C1	R989	C1	C930	C2	R972	C2	ZD914	C2	R959	C3	ZD909	C3		
R927B	A1	R928	A3	D905	B1	R911	B1	R923	B1	R932	B1	ZD904	B1	R978	B2	Q917	C1	R991	C1	C969	C2	R974	C2	C940	C3	R960	C3	ZD913	C3		
R927C	A1	R901	A4	D907	B1	R912	B1	R924	B1	R934	B1	ZD905	B1	C904	B3	R921	C1	R994	C1	C973	C2	R976	C2	C941	C3	R962	C3	R951	C4		



Mechanical Exploded View

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MECHANICAL PART LIST

Loc.	Part No.	Description
1	996510001608	DISPLAY LENS
2	996510001609	VOL RING
3	996510001610	VOL KNOB
5	996510001611	FRONT CAB
6	996510001612	SOURCE BUTTON
7	996510003837	VFD FILTER
10	996510001614	SCREW HOLDER
14	996500036124	RUBBER FOOT DIA14XT3.0MM
15	996510007171	BOTTOM CAB
18	996510007681	BACK CAB SECC
19	996500042571	FAN DC 12V 0.1A 4000RPM
20	996510001615	FAN COVER
22	996510001607	TUNER PACK
27	996510001616	FUNCTION BUTTON
28	996510001617	STANDBY LENS
29	996510001618	STANDBY BUTTON
30	996510007172	TOP CAB
31	996510001619	POWER PVC
33	996510006397	PHONE+VOL PCB
34	996510001605	POWER PCB
35	996510002650	POWER CORD
36	996510001603	MAIN PCB
37	996510001602	CONTROL PCB
AM	996510001621	LOOP ANT
Audio	996500023267	RCA CABLE 1200MM BLK
CN101	996510001623	FFC CABLE 10P 60MM
Coaxial	996510003625	RCA CAE
FM	996500023583	FM ANTENNA
RC	996510001620	REMOTE CONTROL
Stereo	996510001598	STEREO CABLE

SPEAKER

RFC	996510001599	RUBBER FOOT -CENTER SPK
RFF	996510001600	RUBBER FOOT-FRONT SPK
RFR	996510001601	RUBBER FOOT - REAR SPK
RFS	996500028375	RUBBER FOOT
SPKC	996510001624	SPEAKER BOX -CENTER
SPKFL	996510001625	SPEAKER BOX -FRONT LEFT
SPKFR	996510001626	SPEAKER BOX - FRONT RIGHT
SPKRL	996510001627	SPEAKER BOX- REAR LEFT
SPKRR	996510001628	SPEAKER BOX- REAR RIGHT
SUBW	996510001629	SUBWOOFER